



MAG 9/02/00

LAKESIDE OFFICE PARK
607 NORTH AVENUE, SUITE 11
WAKEFIELD, MA 01880
781-246-8897
FAX: 781-246-8950
WWW.ECSCONSULT.COM

April 12, 2006

US Environmental Protection Agency
RGP-NOC Processing
Municipal Assistance Unit
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Subject: Remediation General Permit – Notice of Intent
Beachmont School, 15 Everard Avenue, Revere, Massachusetts
ECS Project No. 05-203823
ECS Document No. 05-06-060

Dear EPA Municipal Assistance Unit:

On behalf of the City of Revere Public Schools Department, City of Revere, Massachusetts, Environmental Compliance Services, Inc. (ECS) has prepared this Notice of Intent (NOI) for the Remediation General Permit for the Beachmont School located at 15 Everard Avenue in Revere, Massachusetts. The purpose of the NOI is to gain coverage under the Remediation General Permit for the discharge of treated water at the Beachmont School.

SITE DESCRIPTION & HISTORY

The Site is located on a property utilized as a public elementary and middle school by approximately 850 students and facility members while school is in session. The property is located within a densely populated mixed-use area of Revere, Massachusetts as depicted in Figure 1 – Site Locus. The property is improved by the school building, athletic fields, an asphalt parking lot, and a maintenance building. Pertinent site features are depicted in Figure 2 – Site Plan.

On November 15, 2002, a release of an unknown quantity of No. 2 fuel oil, estimated to be between 3,000 and 4,000 gallons, to soil, groundwater, and the storm-water system resulting in a migration of petroleum odors in the school was discovered at the Site. The release was identified as light non-aqueous phase liquid (LNAPL) discovered on groundwater entering the crawl space beneath the school building. The cause of the No. 2 fuel oil release was suspected to be the 10,000-gallon underground storage tank (UST) located at the Site. In conformance with MCP regulations, the City of Revere verbally notified the MADEP that a release requiring a “two-hour” notification.

As previously stated, the disposal site is located at the Beachmont School. As such, both children and adults may be present at a high frequency and high intensity. According to information obtained from the Bureau of Waste Site Clean-up (BWSC) Score Map, the Site is not located within a drinking water source area and is not considered a priority resource area. Additionally, according to records maintained by the City of Revere, there are no private wells within a 500-ft radius of the Site. Therefore, per 310 CMR 40.0932 and 40.0933, the applicable soil and groundwater cleanup categories for this Site are S-1/GW-2 and S-1/GW-3.

In November of 2003, ECS submitted a Phase I Initial Site Investigation Report and Tier Classification submittal in accordance with the requirements outlined in 310 CMR 40.0480 and 40.0500 for the Site.

According to the Numerical Ranking System (NRS), the Site achieved a score of 450, resulting in a Tier 1B Classification. Response actions at the Site are being conducted pursuant to the requirements/approvals of a Tier 1B Permit (Transmittal No. W045518). The Site is currently operating under a Phase IV Remedy Implementation Plan submitted to the Massachusetts Department of Environmental Protection (MADEP) in March of 2006.

TREATMENT SYSTEM

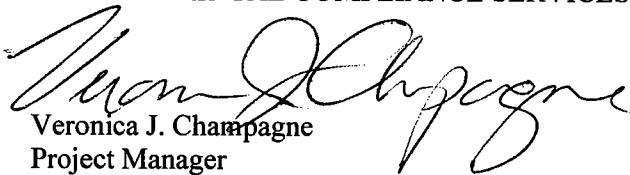
The light non-aqueous phase liquid (LNAPL) recovery system was originally designed to function as follows (Figure 3, 4 and 5): groundwater and LNAPL are removed from six recovery wells using pneumatic pumps. The fluid is conveyed through flexible transfer piping to an oil/water separator tank located within the school building's maintenance garage. The LNAPL present on the water surface in this tank is recovered and contained in a separate 500-gallon above ground storage tank (AST). The water is transferred into a third 55-gallon AST, and then conveyed through two vessels, aligned in series, that each contains 300 pounds of granular activated carbon (GAC). The carbon vessels are rated for flows between 3 and 12 gallons per minute, with a maximum suggested flow-rate of 15 gallons per minute. The treated water is then discharged into the existing storm sewer.

On February 15, 2006 samples were collected from the existing treatment system for laboratory analyses in order to meet the new testing requirements of the RGP. As shown in the laboratory reports and data summary tables attached at the end of this report, no metals exceeded the discharge limits. Monitoring, sampling, and report submittals are expecting to change to quarterly with the approval of the NOI RGP.

In accordance with the NOI-RGP, a copy of the completed NOI-RGP is being submitted to the MADEP Division of Watershed Management, 627 Main St, 2nd Floor, Worcester, MA, 01608.

If you have any questions regarding the above mentioned information, please do not hesitate to call 781-246-8897.

Sincerely,
ENVIRONMENTAL COMPLIANCE SERVICES, INC.



Veronica J. Champagne
Project Manager

cc: MADEP Division of Watershed Management,
627 Main St, 2nd Floor, Worcester, MA, 01608

Attachments:

- Form for Notice of Intent for General Remediation Permit
- Figure 1 – Site Locus Map
- Figure 2 – Site Plan
- Figure 3 – Liquid Recovery & Treatment System
- Figure 4 – Liquid Recovery & Treatment System
- Figure 5 – Legend for Figures 3 & 4
- Table 1 – Influent analytical data
- Laboratory Reports (Samples collected on February 15, 2006)

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General site information. Please provide the following information about the site:

a) Name of facility/site: Beachmont Elementary School	Facility/site address: 15 Everard Ave Revere, MA 02151		
Location of facility/site: longitude: 42.23 latitude: 70.59	Facility SIC code(s):	Street: 15 Everard Ave	
b) Name of facility/site owner: City of Revere	Town: Revere		
Email address of owner: Mayor@Revere.org	State: MA	Zip: 02151	County: Suffolk
Telephone no. of facility/site owner: (781) 286-8110	Owner is (check one): 1. Federal 2. State/Tribal <input checked="" type="checkbox"/> 3. Private 4. other, if so, describe: Address of owner (if different from site): Street: 281 Broadway		
Town: Revere	State: MA	Zip: 02151	County: Suffolk
c) Legal name of operator: Environmental Compliance Services, Inc.	Operator telephone no: (781) 246-8897 Operator fax no.: (781) 246-8950 Operator email: VChampagne@ECSconsult.com		
Operator contact name and title: Veronica Champagne, Project Manager			

Address of operator (if different from owner):		Street: 607 North Ave., Suite 11						
Town: Wakefield	State: MA	Zip: 01880	County: Middlesex					
<p>d) Check "yes" or "no" for the following:</p> <ol style="list-style-type: none"> 1. Has a prior NPDES permit exclusion been granted for the discharge? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>, if "yes," number: _____ 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>, if "yes," date and tracking #: _____ 3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes <input checked="" type="checkbox"/> No _____ <p>e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>If "yes," please list:</p> <ol style="list-style-type: none"> 1. site identification # assigned by the state of NH or MA: 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number: <p>f) Is the site/facility covered by any other EPA permit, including:</p> <ol style="list-style-type: none"> 1. multi-sector storm water general permit? Y <input type="checkbox"/> N <input checked="" type="checkbox"/>, if Y, number: _____ 2. phase I or II construction storm water general permit? Y <input type="checkbox"/> N <input checked="" type="checkbox"/>, <p>If Y, number:</p> <ol style="list-style-type: none"> 3. individual NPDES permit? Y <input type="checkbox"/> N <input checked="" type="checkbox"/>, if Y, number: _____ 4. any other water quality related permit? Y <input type="checkbox"/> N <input checked="" type="checkbox"/>, if Y, number: _____ 								
<p>2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:</p> <p>a) Describe the discharge activities for which the owner/applicant is seeking coverage: See additional sheets.</p> <p>b) Provide the following information about each discharge:</p> <table border="1"> <tr> <td>1) Number of discharge points: 1</td> <td>2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft³/s)? Max. flow <u>15</u> Average flow <u>7.5</u>. Is maximum flow a design value? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.</td> </tr> <tr> <td colspan="2">3) Latitude and longitude of each discharge within 100 feet: pt.1: long. <u>42.23</u> lat. <u>70.59</u>; pt.2: long. _____ lat. _____; pt.3: long. _____ lat. _____; pt.4: long. _____ lat. _____; pt.5: long. _____ lat. _____; pt.6: long. _____ lat. _____; pt.7: long. _____ lat. _____; pt.8: long. _____ lat. _____; etc.</td> </tr> </table>					1) Number of discharge points: 1	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow <u>15</u> Average flow <u>7.5</u> . Is maximum flow a design value? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.	3) Latitude and longitude of each discharge within 100 feet: pt.1: long. <u>42.23</u> lat. <u>70.59</u> ; pt.2: long. _____ lat. _____; pt.3: long. _____ lat. _____; pt.4: long. _____ lat. _____; pt.5: long. _____ lat. _____; pt.6: long. _____ lat. _____; pt.7: long. _____ lat. _____; pt.8: long. _____ lat. _____; etc.	
1) Number of discharge points: 1	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow <u>15</u> Average flow <u>7.5</u> . Is maximum flow a design value? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.							
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4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent <input checked="" type="checkbox"/> or seasonal <input type="checkbox"/> ? Is discharge ongoing Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> ?
c) Expected dates of discharge (mm/dd/yy): start <u>01/01/06</u> end <u>12/31/10</u>	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).	

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for all of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to:
- Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants ✓	Petroleum with Other Contaminants ✓	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is believed present or believed absent in the potential discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value concentration (ug/l)	mass (kg)	concentration (ug/l)	Avg. daily value mass (kg)
1. Total Suspended Solids	✓	1	grab	160.2	<0.001	0.005	0.00000	0.005	0.00000	0.00000
2. Total Residual Chlorine	✓	1	grab	330.5	<0.10	None	None	None	None	None
3. Total Petroleum Hydrocarbons	✓	1	grab	1664	<0.001	0.005	0.00000	0.005	0.00000	0.00000
4. Cyanide	✓	1	grab	335.4	<0.10	None	None	None	None	None
5. Benzene	✓	1	grab	8260	<10.0	32.2	0.000	<0.5	0.000	0.000
6. Toluene	✓	1	grab	8260	<10.0	None	None	None	None	None
7. Ethylbenzene	✓	1	grab	8260	<10.0	None	None	None	None	None
8. (m,p,o) Xylenes	✓	1	grab	8260	<10.0	None	None	None	None	None
9. Total BTEX ⁴	✓	1	grab	8260	<10.0	32.2	0.000	<0.5	0.000	0.000

⁴ BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value	Avg. daily value
						concentration (ug/l)	mass (kg)	concentration (ug/l)
10. Ethylene Dibromide (1,2-Dibromo-methane)	✓		1	grab	8260	<20.0	None	None
11. Methyl-tert-Butyl Ether (MtBE)	✓	✓	1	grab	8260	<5.0	10.0	0.0000
12. tert-Butyl Alcohol (TBA)	✓		1	grab	8260	<5.0	None	None
13. tert-Amyl Methyl Ether (TAME)	✓		1	grab	8260	<5.0	None	None
14. Naphthalene	✓	✓	1	grab	8270	<5.0	38	0.00003
15. Carbon Tetra-chloride	✓		1	grab	8260	<5.0	None	None
16. 1,4-Dichlorobenzene	✓	✓	1	grab	8260	<1.0	None	None
17. 1,2-Dichlorobenzene	✓	✓	1	grab	8260	<1.0	None	None
18. 1,3-Dichlorobenzene	✓	✓	1	grab	8260	<1.0	None	None
19. 1,1-Dichloroethane	✓	✓	1	grab	8260	<1.0	None	None
20. 1,2-Dichloroethane	✓	✓	1	grab	8260	<1.0	None	None
21. 1,1-Dichloroethylene	✓	✓	1	grab	8260	<1.0	None	None
22. cis-1,2-Dichloro-ethylene	✓	✓	1	grab	8260	<1.0	None	None
23. Dichloromethane (Methylene Chloride)	✓		1	grab	8260	<10.0	None	None
24. Tetrachloroethylene	✓		1	grab	8260	<1.0	None	None

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value	Avg. daily Value	
						concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✓		1	grab	8260	<1.0	None	None	None
26. 1,1,2 Trichloroethane	✓		1	grab	8260	<1.0	None	Nhoe	None
27. Trichloroethylene	✓		1	grab	8260	<1.0	None	None	None
28. Vinyl Chloride	✓		1	grab	8260	<1.0	None	None	None
29. Acetone	✓		1	grab	8260	>20.0	None	None	None
30. 1,4 Dioxane	✓		1	grab	8260	<1.0	None	None	None
31. Total Phenols	✓		1	grab	8270	<10.0	None	None	None
32. Pentachlorophenol	✓		1	grab	8270	>50.0	None	None	None
33. Total Phthalates ⁵ (Phthalate esters)	✓		1	grab	8270	<10.0	None	None	None
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	grab	8270	<10.0	None	None	None
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	grab	8270	>2.0	None	None	None
a. Benzo(a) Anthracene	✓		1	grab	8270	>2.0	None	None	None
b. Benzo(a) Pyrene	✓		1	grab	8270	>2.0	None	None	None
c. Benzo(b) Fluoranthene	✓		1	grab	8270	>2.0	None	None	None
d. Benzo(k) Fluoranthene	✓		1	grab	8270	>2.0	None	None	None
e. Chrysene	✓		1	grab	8270	>2.0	None	None	None

⁵The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value	Average daily value
f. Dibenz(a,h) anthracene	✓		1	grab	8270	>2.0	None	None
g. Indeno(1,2,3-cd) Pyrene	✓		1	grab	8270	>2.0	None	None
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	grab	8270	>2.0	None	None
h. Acenaphthene	✓		1	grab	8270	>2.0	None	None
i. Acenaphthyene	✓		1	grab	8270	>2.0	None	None
j. Anthracene	✓		1	grab	8270	>2.0	None	None
k. Benzo(ghi) Perylene	✓		1	grab	8270	>2.0	None	None
l. Fluoranthene	✓		1	grab	8270	>2.0	None	None
m. Fluorene	✓		1	grab	8270	>2.0	None	None
n. Naphthalene	✓		1	grab	8270	>2.0	None	None
o. Phenanthrene	✓		1	grab	8270	>2.0	None	None
p. Pyrene	✓		1	grab	8270	>2.0	None	None
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	grab	1668a	>289	723	723
38. Antimony	✓		1	grab	6010b	<0.0000	None	None
39. Arsenic	✓		1	grab	6010b	<0.0000	0.0000	0.00000
40. Cadmium	✓		1	grab	6010b	<0.0000	None	None
41. Chromium III	✓		1	grab	6010b	<0.0000	None	None
42. Chromium VI	✓		1	grab	6010b	<0.0000	None	None

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value	Avg. daily value
						concentration (ug/l)	mass (kg)	concentration (ug/l)
43. Copper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	grab	6010b	<0.0000	0.000	0.000
44. Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	grab	7470a	<0.0000	None	None
45. Mercury	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	grab	6010b	<0.0000	None	None
46. Nickel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	grab	6010b	<0.0000	None	None
47. Selenium	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	grab	6010b	<0.0000	None	None
48. Silver	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	grab	6010b	<0.0000	None	None
49. Zinc	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	grab	6010b	<0.0000	0.000	0.000
50. Iron	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	grab	6010b	<0.0000	0.000	0.000
Other (describe):								

c) For discharges where metals are believed present, please fill out the following:

Step 1: Do any of the metals in the influent have a reasonable potential to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	If yes, which metals?
Step 2: For any metals which have reasonable potential to exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: _____	Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> If "Yes," list which metals: _____
DF: _____	

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

- a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

See additional sheets.
4a

b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter	GAC filter
	Chlorination	Dechlorination	✓		✓	✓

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate(s)** (gallons per minute) of the treatment system:
Average flow rate of discharge 7.5 Maximum flow rate of treatment system 15 Design flow rate of treatment system 8.0

- d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

None

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct _____	Within facility <input checked="" type="checkbox"/>	Storm drain <input checked="" type="checkbox"/>	River/brook _____	Wetlands _____	Other (describe): _____
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- b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
See attached sheet.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:	
1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.	
d) Provide the state water quality classification of the receiving water _____,	
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water _____ Please attach any calculation sheets used to support stream flow and dilution calculations.	
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes _____ No <input checked="" type="checkbox"/> If yes, for which pollutant(s)?	
Is there a TMDL? Yes _____ No <input checked="" type="checkbox"/> If yes, for which pollutant(s)?	
6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.	
a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Has any consultation with the federal services been completed? No <input checked="" type="checkbox"/> or is consultation underway? No <input checked="" type="checkbox"/> What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service <input checked="" type="checkbox"/> (check one): a “no jeopardy” opinion? <input checked="" type="checkbox"/> or written concurrence _____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?	
b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	

7. Supplemental information :

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.
See attached sheets.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

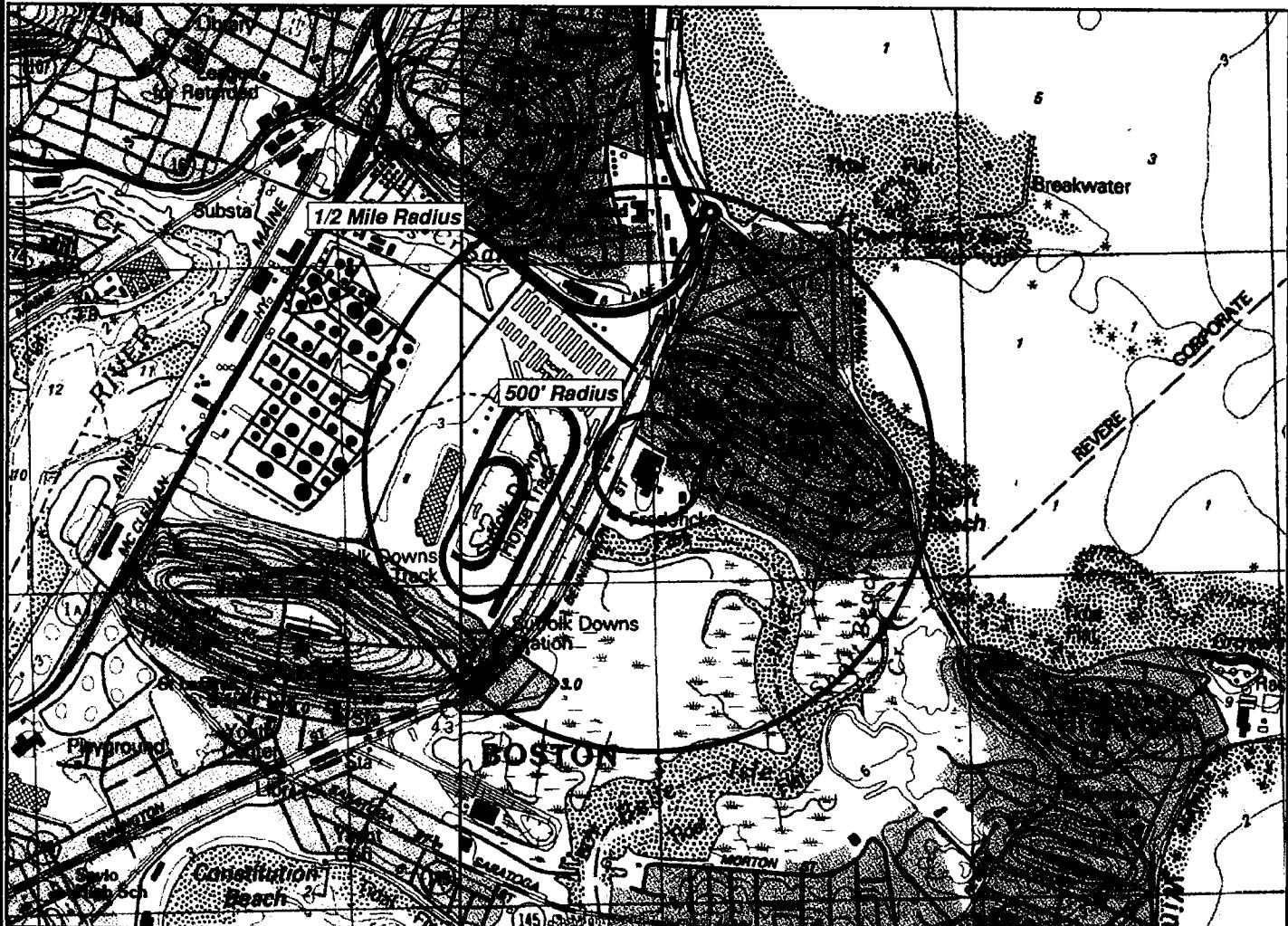
Facility/Site Name:	Beachmont Elementary School
Operator signature:	
Title:	
Date:	

ecs

Environmental Compliance Services, Inc.
607 North Avenue, Wakefield, MA 01880
Phone (781)-246-8897 Fax (781)-246-8950
www.ecsconsult.com

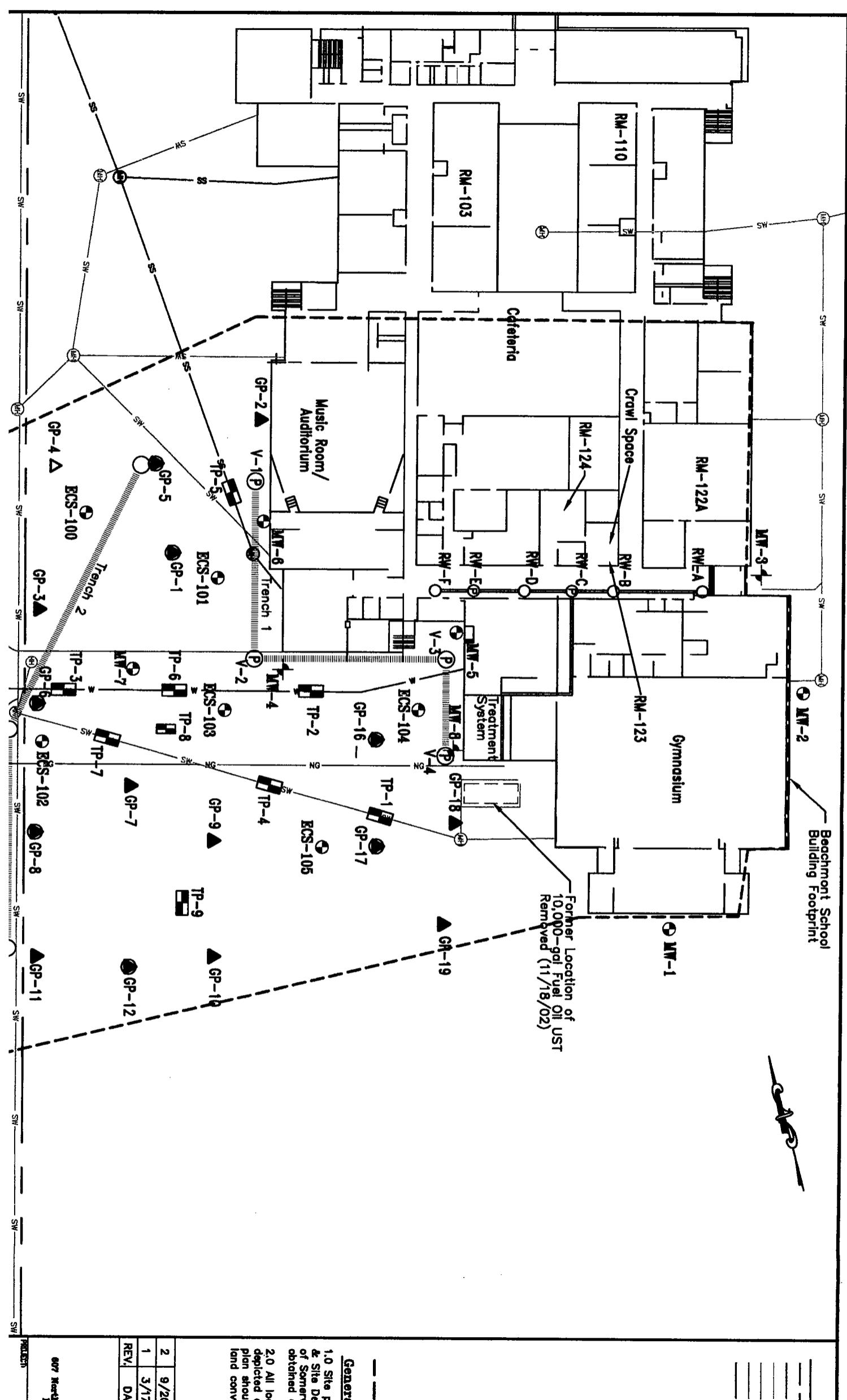
SITE LOCUS**Figure: 1**

Beachmont School
15 Everard Street
Revere, MA
02151

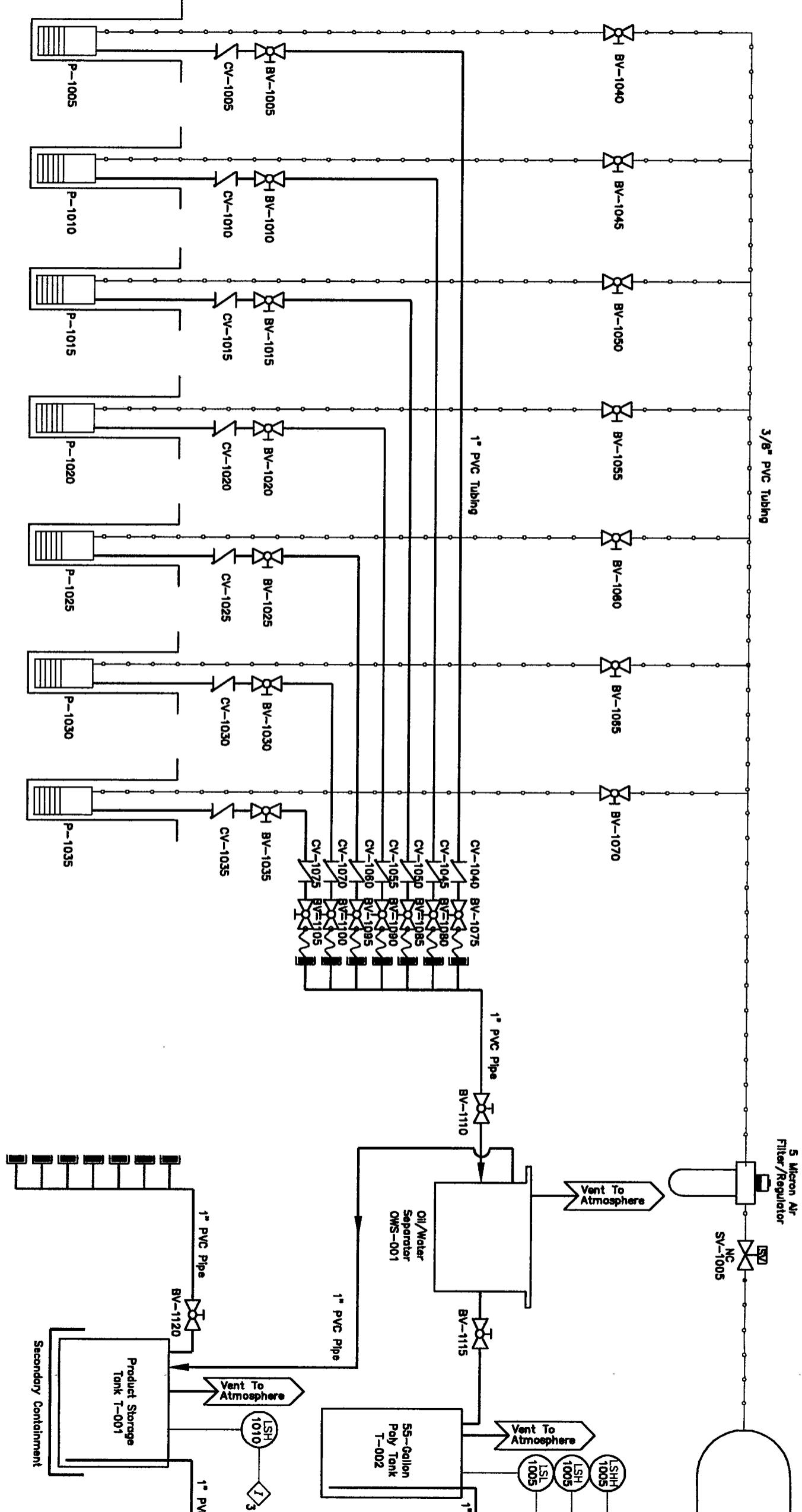
Job Number: 05-203823.00

1 1/2 0 1 Mile

1 inch = 1500 feet**Contour Interval: 3 Meters****North****Base Map: U.S. Geological Survey; Quadrangle Location: Lynn, Massachusetts****UTM Coordinates: 19 0335986 East / 46 95343 North****Map Edited: 1985****Map Revised: NONE****Generated By: MTM**



LIQUID RECOVERY & TREATMENT SYSTEM



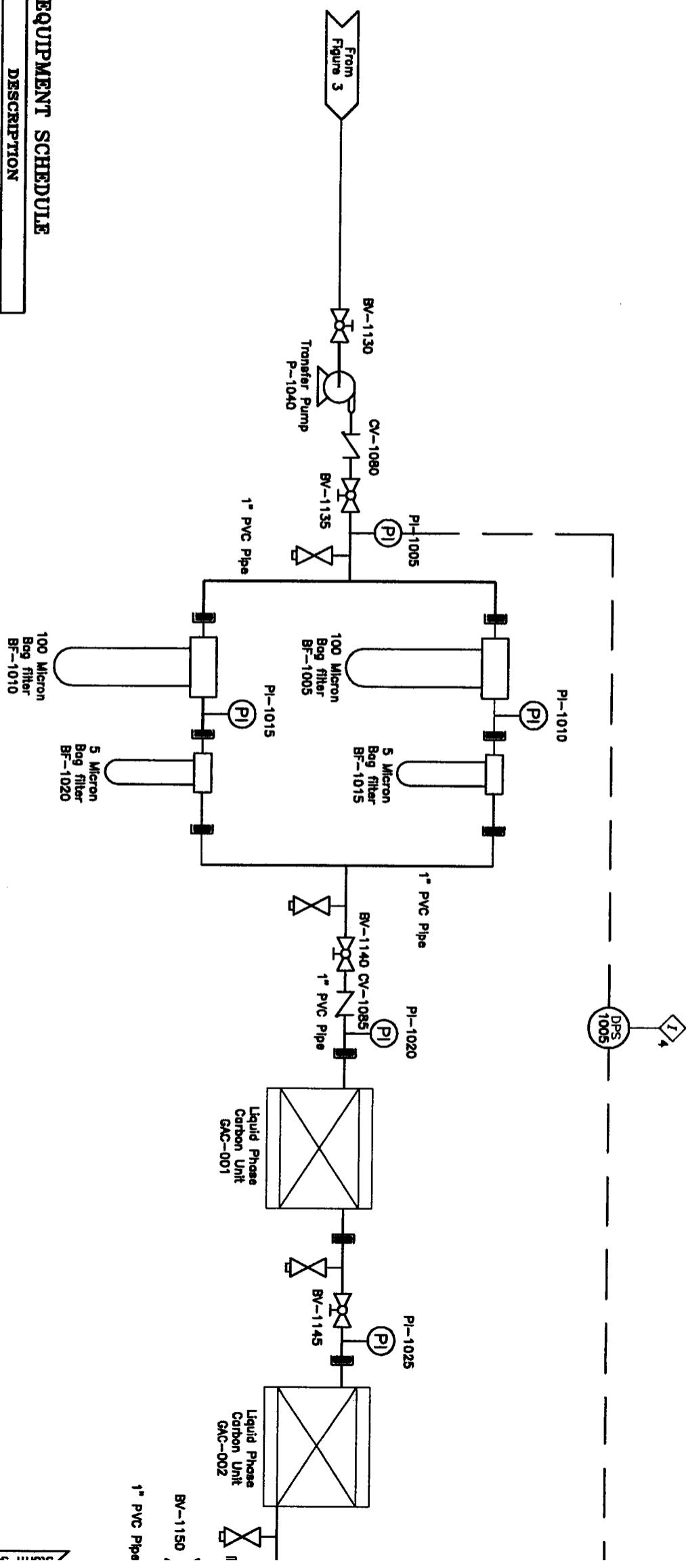
LIQUID RECOVERY & TREATMENT SYSTEM

EQUIPMENT SCHEDULE

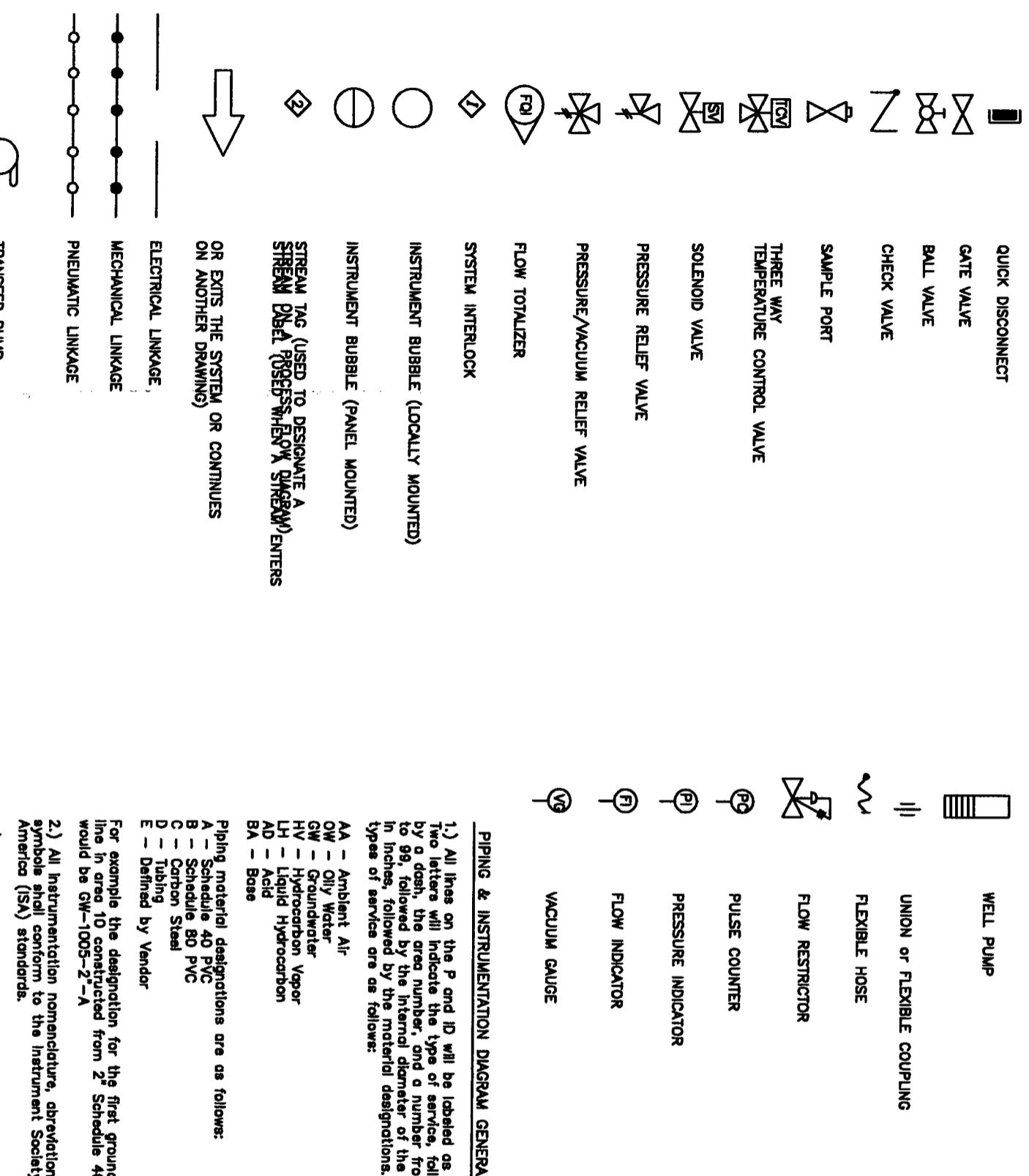
I.D.	DESCRIPTION
GAC-001	Liquid Phase GAC 200lb Unit
GAC-002	Liquid Phase GAC 200lb Unit
P-008	Transfer Pump
C-001	Air Compressor System
BF-1005	50 Micron Bag Filter
BF-1010	50 Micron Bag Filter
BF-1015	5 Micron Bag Filter

INTERLOCKS SCHEDULE

I.D.	DESCRIPTION
4	DPS-1005 Closes SV-1005 On Significant Pressure Loss



INSTRUMENT/VALVE SYMBOLS



PROCESS EQUIPMENT SYMBOLS

ABBREVIATIONS

	LEVEL ELEMENT	TE	TEMF
LT	LEVEL TRANSMITTER	TC	TEMF
LSL	LEVEL SWITCH LOW	TCV	TEMF
LSLL	LEVEL SWITCH LOW LOW	FS	FLOW
LSH	LEVEL SWITCH HIGH	FSL	FLOW
LSHH	LEVEL SWITCH HIGH HIGH	FSH	FLOW
PI	PRESSURE INDICATOR	PSE	PRES
VG	VACUUM GAUGE	FT	FLOW
VSL	VACUUM SWITCH LOW	FCV	FLOW
M	MOTOR STARTER	P	PUMI
PSH	SYSTEM INTERLOCK	K	BLOW
NC	NORMALLY CLOSED	S	SEPA
NO	NORMALLY OPEN	C	COLL
PSL	PRESSURE SWITCH LOW	CF	CART
PSH	PRESSURE SWITCH HIGH	GW	GROI
PCV	PRESSURE CONTROL VALVE	TW	TAP
FT	FLOW TRANSMITTER	A	SCH
FE	FLOW ELEMENT	B	SCH
FM	FLOW METER	CS	CARE
LCV	LEVEL CONTROL VALVE	D	TUBII
GV	GATE VALVE	E	DEFIN
CV	CHECK VALVE	SP	SAMP
BV	BALL VALVE	SV	SOLE

PIPING & INSTRUMENTATION DIAGRAM GENERAL NOTES

1.) All lines on the P and ID will be labeled as follows: Two letters will indicate the type of service, followed by a dash, the area number, and a number from 01 to 99, followed by the internal diameter of the line in inches, followed by the material designations. The types of service are as follows:

AA - Ambient Air

OW - Oily Water

GW - Groundwater

HV - Hydrocarbon Vapor

LH - Liquid Hydrocarbon

AD - Acid

BA - Base

Piping material designations are as follows:

A - Schedule 40 PVC

B - Schedule 80 PVC

C - Carbon Steel

D - Tubing

E - Defined by Vendor

For example the designation for the first groundwater line in area 10 constructed from 2" Schedule 40 PVC would be GW-1005-2-A

2.) All instrumentation nomenclature, abbreviations, and symbols shall conform to the Instrument Society of America (ISA) standards.

PROCESS FLOW DIAGRAM GENERAL NOTE

1.) The first treatment system installed on the designated as AREA 10. All equipment that is this system will be designated by a letter following the area number and a number from 01 increments of 5. For example P-1005 followed by P-1010. The second treatment system will be designated area 20 on so on.

2.) All separators will be designated as S-XXXX includes vapor/liquid separators, particulate filters/oil/water separators.

3.) All blowers will be designated as B-XXXX can do a 2 to 1 or greater compression are compressors and will be designated K-XXXX.

4.) All columns will be designated as C-XXXX activated carbon, tray deodorizers, air strippers, or sponge tanks.

5.) Storage tanks will be designated T-XXXX. bumpers and secondary containment.

6.) All process streams which enter or leave the will be provided on the flowrate, pressure, temperature, specific gravity, containment concentrations, and information required to fully understand the process tags will start at 1 and increase sequentially.

TABLE 1
INFLUENT ANALYTICAL DATA - 2005/2006
Oil/Water Recovery System, Beachmont School, Revere, MA

	Analyte	MCP GW-1 Standard	1/4/05	2/4/05	3/4/05	4/1/05	5/12/05	6/9/05	8/19/05	9/19/05	10/25/05	11/18/05	12/16/05	2/15/06
	Volatile Organic Compounds (ug/l)													
Acetone		3,000	<20.0	<20.0	<100	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
Acrylonitrile		NA	<1.0	<1.0	7.3	<5.0	<10.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
Benzene		5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
Bromobenzene		1,000	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
Bromoform		NA	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
Bromomethane		5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
2-Butanone (MEK)		5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
n-Butylbenzene		2	<2.0	<2.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	32.2	15.8	24.2	24.4
sec-Butylbenzene		400	<10.0	<10.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	32.2	15.8	24.2	24.4
tert-Butylbenzene		NA	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
Carbon disulfide		1,000	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
Carbon tetrachloride		5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
Chlorobenzene		100	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
Chloroethane		1,000	<2.0	<2.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	32.2	15.8	24.2	24.4
Chloroform		5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
Chloromethane		1,000	<2.0	<2.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	32.2	15.8	24.2	24.4
2-Chlorotoluene		1,000	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
4-Chlorotoluene		NA	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
1,2-Dibromo-3-chloropropane		100	<2.0	<2.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	32.2	15.8	24.2	24.4
Dibromoformate		5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
1,2-Dibromomethane (EDB)		NA	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
Dibromomethane		5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
1,2-Dichlorobenzene		600	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
1,3-Dichlorobenzene		600	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
1,4-Dichlorobenzene		5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
Dichlorodifluoromethane (Freon 12)		NA	<2.0	<2.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	32.2	15.8	24.2	24.4
1,1-Dichloroethane		70	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
1,2-Dichloroethane		5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
1,1-Dichloroethene		1	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
cis-1,2-Dichloroethene		70	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
trans-1,2-Dichloroethene		100	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
1,2-Dichloropropane		5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
1,3-Dichloropropane		5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
2,2-Dichloropropane		NA	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
1,1-Dichloropropene		0.5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
cis-1,3-Dichloropropene		0.5	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	32.2	15.8	24.2	24.4
trans-1,3-Dichloropropene		700	<1.0	<1.0	13.7	17.7	11.0	13.0	6.9	13.0	23.7	40.2	41.8	<10
Ethylbenzene		0.6	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	23.7	40.2	41.8	<10
Hexachlorobutadiene		1,000	<10.0	<10.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	23.7	40.2	41.8	<10
2-Hexanone (MBK)		10,000	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	23.7	40.2	41.8	<10
Isopropylbenzene														

TABLE 1
INFLUENT ANALYTICAL DATA - 2005/2006
Oil/Water Recovery System, Beachmont School, Revere, MA

Analyte	MCP GW-1 Standard	1/4/05	2/4/05	3/4/05	4/1/05	5/12/05	6/9/05	8/19/05	9/19/05	10/25/05	11/18/05	12/16/05	2/15/06	
4-Isopropyltoluene	NA	<1.0	<1.0	5.2	--	--	--	--	--	--	--	--	<10	
Methyl tert-butyl ether (MTBE)	70	22.0	11.9	129	170	193	49.4	16.9	213	300	456	540	10	
4-Methyl-2-pentanone (MIBK)	400	<10.0	<10.0	<50.0	--	--	--	--	--	--	--	--	<20	
Methylene chloride	5	<10.0	<10.0	<50.0	--	--	--	--	--	--	--	--	<10	
Naphthalene	20	3.8	2.9	167	--	--	--	--	--	--	--	--	38	
n-Propylbenzene	1,000	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<10	
Styrene	100	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<10	
1,1,2-Tetrachloroethane	5	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<10	
1,1,2,2-Tetrachloroethane	5	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<10	
Tetrachloroethene	5	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<10	
Toluene	1,000	<1.0	<1.0	9.9	<5.0	<10.0	<5.0	<5.0	56.8	10.1	11.5	11.4	<10	
1,2,3-Trichlorobenzene	NA	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<10	
1,2,4-Trichlorobenzene	70	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<10	
1,1,1-Trichloroethane	10,000	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<10	
1,1,2-Trichloroethane	5	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<10	
Trichloroethene	5	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<10	
Trichlorofluoromethane (Freon 11)	NA	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<20	
1,2,3-Trichloropropane	1,000	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<10	
1,2,4-Trimethylbenzene	10,000	6.7	2.6	95.3	--	--	--	--	--	--	--	--	35	
1,3,5-Trimethylbenzene	100	<1.0	26.9	--	--	--	--	--	--	--	--	--	13	
Vinyl chloride	2	<1.0	<1.0	<5.0	--	--	--	--	--	--	--	--	<10	
m,p-Xylene	6,000	<2.0	68.6	114	78.6	90.9	34.0	142	60.2	78.4	71.8	<10		
o-Xylene	6,000	1.0	1.2	41.2	70.6	52.4	68.0	24.7	74.0	37.6	41.3	40.3	<10	
TOTAL BTEX COMPOUNDS	NA ¹	1.0	1.2	141	202	142	172	65.6	435	147	196	190	0	
Extractable Petroleum Hydrocarbons (mg/l)														
C ₉ -C ₁₈ Aliphatic Hydrocarbons	4	<0.2	<0.2	7.2	47.9	26.5	63.1	14.7	12.2	7.7	3.8	14.9	9.1	
C ₁₉ -C ₃₆ Aliphatic Hydrocarbons	5	<0.2	<0.2	2.8	27.6	12.9	28.9	6.6	4.9	3.5	1.7	6.4	2.8	
C ₁₁ -C ₂₂ Aromatic Hydrocarbons	0.2	0.3	<0.2	4.1	43.9	23.0	65.8	12.0	9.4	6.3	4.5	12.0	6.0	
EPH Target PAH Compounds (ug/l)														
Naphthalene	20	<5.68	<5.49	78.0	148	62.5	107	25.6	J	200	36.2	73.4	88.7	
2-Methylnaphthalene	10	<5.68	<5.49	108	464	148	454	84.5	J	166	40.4	50.3	67	
Acenaphthylene	300	<5.68	<5.49	<5.43	15.7	<5.38	<6.25	<6.76	<5.75	<5.68	<5.32	<5.81	<25	
Acenaphthene	20	<5.68	<5.49	12.5	83.1	21.4	62.2	13.7	36.6	5.91	8.66	19.8	<25	
Fluorene	300	<5.68	<5.49	15.0	104	38.5	91.8	26.4	38.4	<5.68	9.38	28.8	35	
Phenanthrene	300	<5.68	<5.49	29.5	225	82.2	181	42.7	117	20.2	11.6	58.0	32	
Anthracene	2,000	<5.68	<5.49	<5.43	34.7	13.1	32.7	9.73	28.6	5.68	<5.32	8.35	<25	
Fluoranthene	300	<5.68	<5.49	<5.43	31.1	12.9	24.2	<6.76	30.8	<5.68	<5.32	<5.81	<25	
Pyrene	200	<5.68	<5.49	8.24	71.0	23.9	50.5	17.1	50.9	10.9	5.64	17.0	<25	
Benz(a)anthracene	1	<5.68	<5.49	<5.43	10.7	<5.38	9.30	<6.76	14.8	<5.68	<5.32	<5.81	<5.0	
Chrysene	2	<5.68	<5.49	<5.43	9.36	<5.38	13.4	<6.76	13.9	<5.68	<5.32	<5.81	<5.0	
Benz(b)fluoranthene	1	<5.68	<5.49	<5.43	<5.36	<5.38	<6.25	<6.76	<5.75	<5.75	<5.32	<5.81	<5.0	
Benz(k)fluoranthene	1	<5.68	<5.49	<5.43	<5.36	<5.38	<6.25	<6.76	<5.75	<5.75	<5.32	<5.81	<5.0	
Benzo(a)pyrene	0.2	<5.68	<5.49	<5.43	<5.36	<5.38	7.02	<6.76	10.6	<5.68	<5.32	<5.81	<5.0	

TABLE 1
INFLUENT ANALYTICAL DATA - 2005/2006
Oil/Water Recovery System, Beachmont School, Revere, MA

Analyte	MCP GW-1 Standard	1/4/05	2/4/05	3/4/05	4/1/05	5/12/05	6/9/05	8/19/05	9/19/05	10/25/05	11/18/05	12/16/05	2/15/06
Indeno(1,2,3-cd)pyrene	0.5	< 5.68	< 5.49	< 5.43	< 5.36	< 5.38	< 6.25	< 6.25	< 5.75	< 5.75	< 5.32	< 5.81	< 5.0
Dibenzo(a,h)anthracene	0.5	< 5.68	< 5.49	< 5.43	< 5.36	< 5.38	< 6.25	< 6.25	< 5.75	< 5.75	< 5.32	< 5.81	< 5.0
Benzog(h,i)perylene	300	< 5.68	< 5.49	< 5.43	< 5.36	< 5.38	< 6.25	< 6.25	< 5.75	< 5.75	< 5.32	< 5.81	< 5.0
Total PAH	NA ^a	0	0	251	1,197	403	1,033	110	708	119	159	329	163

Notes:

ug/l = micrograms per liter, or parts per billion
 mg/l = milligrams per liter, or parts per million

-- = Not analyzed

BDL = Below Laboratory Detection Limits

¹ EPA Protocol is 100 ppb for BTEX Compounds

² EPA Protocol is 100 ppb for Total PAH

Bold indicates an exceedance of EPA Protocol

Exceeds MCP GW-1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
ONE CONGRESS STREET SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

April 10, 2006

Doris Atkinson
Tighe & Bond, Inc.
53 Southhampton Road
Westfield, MA 01085

Dear Ms. Atkinson:

We have received your letter dated March 29, 2006 requesting a new source determination for your proposed project, the Russell Biomass Facility (the "Facility"). This letter is to notify you that EPA has made the initial determination that the new facility is not a new source under 40 CFR §§ 122.2 and 122.29. Therefore, in accordance with 40 CFR § 6.602(b), EPA NPDES permitting for the Facility will not be subject to environmental review under the National Environmental Policy Act (NEPA). All other relevant Clean Water Act permitting requirements will, of course, apply.

RUSSELL BIOMASS FACILITY SUMMARY

The proposal submitted by Tighe & Bond, Inc., as presented in the Expanded Environmental Notification Form (EENF) dated September 14, 2005, is to develop a 50-megawatt (MW) biomass-fired power plant on 18 acres of a 70-acre parcel in Russell, Massachusetts. Approximately 509,000 tons of biomass wood fuel will be consumed annually to produce heat to drive the turbine to generate electricity. To connect to the existing 115 kV electrical grid, 5.2 miles of transmission line will be constructed within an existing transmission line easement. The plant will consist of a complete fuel receiving and handling system, a single fluidized bubbling bed boiler, a single condensing turbine, a mechanical draft evaporative cooling tower withdrawing make up water via a former intake structure, air and water quality control systems, a distilled fuel oil boiler start up system, and auxiliaries typical of a stand-alone power generating station. The plant intends to modify the former intake structure of Westfield Paper Lands, LLC in order to withdraw an average of 662,000 gpd and a maximum of 885,000 gpd of cooling water from the Westfield River. An existing municipal water main supplies potable water to the site. On-site subsurface sewage disposal will be utilized to treat plant wastewater. A storm drain and storm water management will be constructed on site to collect, detain, and treat storm water.

NEW SOURCE DETERMINATION

Regulations for determining whether a facility constitutes a new source are set forth in 40 CFR Part 122. The term “new source” is defined at 40 CFR § 122.2 as “any building, structure, facility, or installation from which there is or may be a ‘discharge of pollutants,’ the construction of which commenced after promulgation of standards of performance under section 306 of CWA which are applicable to such source”, or in certain instances which commenced after the proposal of an applicable standard of performance. Pursuant to 40 CFR § 122.29(b)(2), if there is no independently applicable standard, the source is not subject to NEPA review (but is still subject to NPDES permitting requirements).

Steam-electric power plants are a categorical industry for which EPA has promulgated certain new source performance standards defined at 40 CFR Part 423. However, according to 40 CFR § 423.10, the provisions of Part 423 “are applicable to discharges resulting from the operation of a generating unit by an establishment primarily engaged in the generation of electricity for distribution and sale which results primarily from a process utilizing fossil-type fuel (coal, oil, or gas) or nuclear fuel in conjunction with a thermal cycle employing the steam water system as the thermodynamic medium.” (emphasis added)

Based on current information provided by you on behalf of Russell Biomass, LLC, EPA has made the initial determination that the Facility will not meet the criterion above and therefore will not constitute a new source. Although the Russell Biomass Facility will use a steam-electric generating process for producing electricity with small amounts of fossil-type fuel to control initial firing, the primary fuel source will be wood. Since the electricity produced by the facility will not “result primarily from a process utilizing fossil-type fuel or nuclear fuel,” the provisions of 40 CFR Part 423 do not apply. Therefore, there are no new source performance standards independently applicable to the proposed facility that would render it a new source under 40 CFR § 122.29(b)(2).

Independent of any new source determination, the Facility will need an NPDES Permit before discharges commence for the proposed new discharge of industrial wastewater for cooling to a surface water and the possible new discharge of industrial storm water. EPA will still need to make several decisions regarding the permit, including the application of Massachusetts State Water Quality Standards for the discharge of heat, the use of a variance to discharge heat under Clean Water Act Section 316(a) should applicable technology or Massachusetts Water Quality Standards not be attained, and the determination that the cooling water intake structure represents the best technology available pursuant to Clean Water Act Section 316(b).

Physical or operational modifications to the former intake structure at the site that minimize entrainment and impingement of fish and wildlife and/or reduce adverse environmental effects of discharge of heated effluent are encouraged and would not alter the determination that the Facility is not a new source.

Changes to your proposal for the Facility could change these new source determinations. If you have further questions regarding the determination I can be reached at (617) 918-1791.

Sincerely,

David M. Webster, Chief
Industrial Permits Branch

CC: Glenn Haas, MA DEP

The laboratory report shall not be reproduced except in full without the written consent of the laboratory.

Date Sampled	Matrix	Laboratory ID	Sample ID	Aqueous	Effluent
02/15/2006	Aqueous	0602-00108 002	Midfluent	0602-00108 003	Aqueous
02/15/2006	Aqueous	0602-00108 001	Impluent	02/15/2006	Effluent

SAMPLE INFORMATION

TMC Services, Inc.
One William Way
Belleville, MA 02019
Project No.: 08.0018838.00
Work Order No.: 0602-00108
Date Received: 02/18/2006
Date Reported: 03/08/2006
Mr. Dean Soutarian
TMC Services, Inc.

ANALYTICAL REPORT

NELAC - NYS DOH: 11063
CT: PH0579 RI: LA000236
MA and ME: MA092 NH: 2026
Laboratory Identification Numbers:

(781) 278-4700
Hopkinton, MA 01748
106 South Street

GZA Environmental, Inc.



Attach QC 8270 02/21/06 - Aquaeous

5. EPA Method 8270 - SVOCs

+ The diluted oil samples are due to interference from the type and concentration of petroleum present in the sample.

Were any significant modifications made to the VPH or EPH methods? Yes No

Attach QC EPH 02/17/06 - Aquaeous

4. MADEP EXTRACTABLE PETROLEUM HYDROCARBONS (EPH)

Attach QC 8260 02/21/06 - Aquaeous

3. EPA Method 8260 - VOCs

Attach QC 7470A 02/21/06 - Aquaeous

2. EPA Method 6010B/7470A - Metals

The data is included in GZA's report for ease of electronic data transfer and is indicated by "XXX" in the tech column. The data report from the subcontractor is attached.

Analyses were subcontracted to Eno River Labs, LLC on 02/17/06.

and

Certification MA: MA-R1015, NH: 253700 A&B, CT: PH-0508, ME: RI015, RI: RI-033, NY: 11726.

Analyses were subcontracted to Rhode Island Analytical (RIAL) on 02/17/06.

2. Subcontracted Analyses

Analyses for Hexavalent Chromium were received beyond the 24 hr hold time and will be resampled by the client and submitted at a later date.

The samples were appropriately preserved in accordance with the method they reference.

The samples were received on 02/16/06 via X-GZA courier, EC, FedEx, or hand delivered. The samples were received on 02/16/06 via X-GZA courier, EC, FedEx, or hand delivered. The temperature of the temperature blank, cooler air, was -1.4 degrees C. The samples were received intact for all requested analyses.

1. Sample Receipt

PROJECT NARRATIVE:

TMC Services, Inc.
One William Way
Bellinham, MA 02019
Mr. Dean Soutamian

Project Name: Laboratory Testing
Date Received: 02/16/2006
Work Order No.: 0602-00108
Project No.: 08.0018838.00

ANALYTICAL REPORT

Hopkinton, MA 01748
(781) 278-4700

106 South Street
GZA GeoEnvironmental, Inc.







GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

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ANALYTICAL REPORT

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Sultanian

Project Name.: **Laboratory Testing**
Project No.: **08.0018838.00**

Date Received: **02/16/2006**
Date Reported: **03/08/2006**
Work Order No.: **0602-00108**

Sample ID: **Influent** Sample No.: **001**
Sample Date: **02/15/2006**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<10	ug/L	MQS	02/21/2006
1,2-Dibromoethane (EDB)	EPA 8260	<20	ug/L	MQS	02/21/2006
Chlorobenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
1,1,1,2-Tetrachloroethane	EPA 8260	<10	ug/L	MQS	02/21/2006
Ethylbenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
m&p-Xylene	EPA 8260	<10	ug/L	MQS	02/21/2006
o-Xylene	EPA 8260	<10	ug/L	MQS	02/21/2006
Styrene	EPA 8260	<10	ug/L	MQS	02/21/2006
Bromoform	EPA 8260	<20	ug/L	MQS	02/21/2006
Isopropylbenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
1,1,2,2-Tetrachloroethane	EPA 8260	<10	ug/L	MQS	02/21/2006
1,2,3-Trichloropropane	EPA 8260	<10	ug/L	MQS	02/21/2006
Bromobenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
N-Propylbenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
2-Chlorotoluene	EPA 8260	<10	ug/L	MQS	02/21/2006
1,3,5-Trimethylbenzene	EPA 8260	13	ug/L	MQS	02/21/2006
4-Chlorotoluene	EPA 8260	<10	ug/L	MQS	02/21/2006
tert-Butylbenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
1,2,4-Trimethylbenzene	EPA 8260	35	ug/L	MQS	02/21/2006
sec-Butylbenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
p-Isopropyltoluene	EPA 8260	<10	ug/L	MQS	02/21/2006
1,3-Dichlorobenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
1,4-Dichlorobenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
n-Butylbenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
1,2-Dichlorobenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
1,2-Dibromo-3-Chloropropane	EPA 8260	<50	ug/L	MQS	02/21/2006
1,2,4-Trichlorobenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
Hexachlorobutadiene	EPA 8260	<10	ug/L	MQS	02/21/2006
Naphthalene	EPA 8260	38	ug/L	MQS	02/21/2006
1,2,3-Trichlorobenzene	EPA 8260	<10	ug/L	MQS	02/21/2006
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	94.2	% R	MQS	02/21/2006
***Toluene-D8	EPA 8260	97.1	% R	MQS	02/21/2006
***4-Bromofluorobenzene	EPA 8260	98.7	% R	MQS	02/21/2006
Preparation	EPA 5030B	10	DF	MQS	02/21/2006
EPH	MADEP			RJD	02/24/2006
Unadjusted C11-C22 Aromatic	MADEP	6200	ug/L	RJD	02/24/2006



GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

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ANALYTICAL REPORT

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Soltanian

Project Name.: **Laboratory Testing**
Project No.: **08.0018838.00**

Date Received: **02/16/2006**
Date Reported: **03/08/2006**
Work Order No.: **0602-00108**

Sample ID: **Influent** Sample No.: **001**
Sample Date: **02/16/2006**

Test Performed	Method	Results	Units	Tech	Analysis Date
C9-C18 Aliphatic Fraction	MADEP	9100	ug/L	RJD	02/24/2006
C19-C36 Aliphatic Fraction	MADEP	2800	ug/L	RJD	02/24/2006
C11-C22 Aromatic Fraction	MADEP	6000	ug/L	RJD	02/24/2006
Surrogates:	MADEP				
***1-Chlorooctadecane	MADEP	53.7	%R	RJD	02/24/2006
***p-Terphenyl (aromatic)	MADEP	64.2	%R	RJD	02/24/2006
***2-Bromonaphthalene	MADEP	D.O.	*	RJD	02/24/2006
<hr/>					
TARGETED PAH ANALYTES	MADEP				
Naphthalene (Diesel PAH)	MADEP	29	ug/L	RJD	02/24/2006
2-Methylnaphthalene	MADEP	67	ug/L	RJD	02/24/2006
Acenaphthylene	MADEP	<25	ug/L	RJD	02/24/2006
Acenaphthene (Diesel PAH)	MADEP	<25	ug/L	RJD	02/24/2006
Fluorene	MADEP	35	ug/L	RJD	02/24/2006
Phenanthrene (Diesel PAH)	MADEP	32	ug/L	RJD	02/24/2006
Anthracene	MADEP	<25	ug/L	RJD	02/24/2006
Fluoranthene	MADEP	<25	ug/L	RJD	02/24/2006
Pyrene	MADEP	<25	ug/L	RJD	02/24/2006
Benzo [a] Anthracene	MADEP	<5.0	ug/L	RJD	02/24/2006
Chrysene	MADEP	<5.0	ug/L	RJD	02/24/2006
Benzo [b] Fluoranthene	MADEP	<5.0	ug/L	RJD	02/24/2006
Benzo [k] Fluoranthene	MADEP	<5.0	ug/L	RJD	02/24/2006
Benzo [a] Pyrene	MADEP	<5.0	ug/L	RJD	02/24/2006
Indeno [1,2,3-cd] Pyrene	MADEP	<5.0	ug/L	RJD	02/24/2006
Dibenzo [a,h] Anthracene	MADEP	<5.0	ug/L	RJD	02/24/2006
Benzo [g,h,i] Perylene	MADEP	<5.0	ug/L	RJD	02/24/2006
Extraction	EPA 3510C	1.0	DF	JEJ	02/17/2006



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(781) 278-4700

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A N A L Y T I C A L R E P O R T

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Soutanian

Project Name.: **Laboratory Testing**
Project No.: **08.0018838.00**

Date Received: **02/16/2006**
Date Reported: **03/08/2006**
Work Order No.: **0602-00108**

Sample ID: **Midfluent**
Sample Date: **02/16/2006**

Sample No.: **002**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	02/21/2006
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	02/21/2006
Chloromethane	EPA 8260	<2.0	ug/L	MQS	02/21/2006
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Bromomethane	EPA 8260	<2.0	ug/L	MQS	02/21/2006
Chloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	02/21/2006
Diethylether	EPA 8260	<5.0	ug/L	MQS	02/21/2006
Acetone	EPA 8260	<25	ug/L	MQS	02/21/2006
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Dichloromethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	02/21/2006
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
2-Butanone	EPA 8260	<25	ug/L	MQS	02/21/2006
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Chloroform	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	02/21/2006
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Benzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
4-Methyl-2-Pentanone	EPA 8260	<2.0	ug/L	MQS	02/21/2006
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Toluene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
trans-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
2-Hexanone	EPA 8260	<2.0	ug/L	MQS	02/21/2006
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	02/21/2006



GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

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ANALYTICAL REPORT

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Soltanian

Project Name.: **Laboratory Testing**
Project No.: **08.0018838.00**

Date Received: **02/16/2006**
Date Reported: **03/08/2006**
Work Order No.: **0602-00108**

Sample ID: **Midfluent** Sample No.: **002**
Sample Date: **02/15/2006**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	02/21/2006
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
m&p-Xylene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
o-Xylene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Styrene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Bromoform	EPA 8260	<2.0	ug/L	MQS	02/21/2006
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	02/21/2006
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Naphthalene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	101	% R	MQS	02/21/2006
***Toluene-D8	EPA 8260	97.5	% R	MQS	02/21/2006
***4-Bromofluorobenzene	EPA 8260	99.6	% R	MQS	02/21/2006
Preparation	EPA 5030B	1.0	DF	MQS	02/21/2006
EPH	MADEP			RJD	02/24/2006
Unadjusted C11-C22 Aromatic	MADEP	<100	ug/L	RJD	02/24/2006



GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

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ANALYTICAL REPORT

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Soltanian

Project Name.: **Laboratory Testing**
Project No.: **08.0018838.00**

Date Received: **02/16/2006**
Date Reported: **03/08/2006**
Work Order No.: **0602-00108**

Sample ID: **Midfluent** Sample No.: **002**
Sample Date: **02/15/2006**

Test Performed	Method	Results	Units	Tech	Analysis Date
C9-C18 Aliphatic Fraction	MADEP	<100	ug/L	RJD	02/24/2006
C19-C36 Aliphatic Fraction	MADEP	<100	ug/L	RJD	02/24/2006
C11-C22 Aromatic Fraction	MADEP	<100	ug/L	RJD	02/24/2006
Surrogates:	MADEP				
***1-Chlorooctadecane	MADEP	59.7	%R	RJD	02/24/2006
***p-Terphenyl (aromatic)	MADEP	79.5	%R	RJD	02/24/2006
***2-Bromonaphthalene	MADEP	138	%R	RJD	02/24/2006
 TARGETED PAH ANALYTES	MADEP				
Naphthalene (Diesel PAH)	MADEP	<5.0	ug/L	RJD	02/24/2006
2-Methylnaphthalene	MADEP	<5.0	ug/L	RJD	02/24/2006
Acenaphthylene	MADEP	<5.0	ug/L	RJD	02/24/2006
Acenaphthene (Diesel PAH)	MADEP	<5.0	ug/L	RJD	02/24/2006
Fluorene	MADEP	<5.0	ug/L	RJD	02/24/2006
Phenanthrene (Diesel PAH)	MADEP	<5.0	ug/L	RJD	02/24/2006
Anthracene	MADEP	<5.0	ug/L	RJD	02/24/2006
Fluoranthene	MADEP	<5.0	ug/L	RJD	02/24/2006
Pyrene	MADEP	<5.0	ug/L	RJD	02/24/2006
Benzo [a] Anthracene	MADEP	<5.0	ug/L	RJD	02/24/2006
Chrysene	MADEP	<5.0	ug/L	RJD	02/24/2006
Benzo [b] Fluoranthene	MADEP	<5.0	ug/L	RJD	02/24/2006
Benzo [k] Fluoranthene	MADEP	<5.0	ug/L	RJD	02/24/2006
Benzo [a] Pyrene	MADEP	<5.0	ug/L	RJD	02/24/2006
Indeno [1,2,3-cd] Pyrene	MADEP	<5.0	ug/L	RJD	02/24/2006
Dibenzo [a,h] Anthracene	MADEP	<5.0	ug/L	RJD	02/24/2006
Benzo [g,h,i] Perylene	MADEP	<5.0	ug/L	RJD	02/24/2006
Extraction	EPA 3510C	1.0	DF	JEJ	02/17/2006



GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

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ANALYTICAL REPORT

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Soltanian

Project Name.: **Laboratory Testing**
Project No.: **08.0018838.00**

Date Received: **02/16/2006**
Date Reported: **03/08/2006**
Work Order No.: **0602-00108**

Sample ID: **Effluent** Sample No.: **003**
Sample Date: **02/15/2006**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	02/21/2006
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	02/21/2006
Chloromethane	EPA 8260	<2.0	ug/L	MQS	02/21/2006
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Bromomethane	EPA 8260	<2.0	ug/L	MQS	02/21/2006
Chloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	02/21/2006
Diethylether	EPA 8260	<5.0	ug/L	MQS	02/21/2006
Acetone	EPA 8260	<25	ug/L	MQS	02/21/2006
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Dichloromethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	02/21/2006
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
2-Butanone	EPA 8260	<25	ug/L	MQS	02/21/2006
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Chloroform	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	02/21/2006
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Benzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
4-Methyl-2-Pentanone	EPA 8260	<2.0	ug/L	MQS	02/21/2006
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Toluene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
trans-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
2-Hexanone	EPA 8260	<2.0	ug/L	MQS	02/21/2006
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	02/21/2006



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106 South Street
Hopkinton, MA 01748
(781) 278-4700

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ANALYTICAL REPORT

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Soltanian

Project Name.: **Laboratory Testing**
Project No.: **08.0018838.00**

Date Received: **02/16/2006**
Date Reported: **03/08/2006**
Work Order No.: **0602-00108**

Sample ID: **Effluent** Sample No.: **003**
Sample Date: **02/15/2006**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	02/21/2006
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
m&p-Xylene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
o-Xylene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Styrene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Bromoform	EPA 8260	<2.0	ug/L	MQS	02/21/2006
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	02/21/2006
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Naphthalene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	02/21/2006
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	95.6	% R	MQS	02/21/2006
***Toluene-D8	EPA 8260	96.9	% R	MQS	02/21/2006
***4-Bromofluorobenzene	EPA 8260	99.0	% R	MQS	02/21/2006
Preparation	EPA 5030B	1.0	DF	MQS	02/21/2006
SEMI-VOLATILE ORGANICS	EPA 8270			CMG	03/08/2006
ACID FRACTION:	EPA 8270				



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ANALYTICAL REPORT

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Soultanian

Project Name.: **Laboratory Testing**
Project No.: **08.0018838.00**

Date Received: **02/16/2006**
Date Reported: **03/08/2006**
Work Order No.: **0602-00108**

Sample ID: **Effluent** Sample No.: **003**
Sample Date: **02/15/2006**

Test Performed	Method	Results	Units	Tech	Analysis Date
Phenol	EPA 8270	<10	ug/L	CMG	03/08/2006
2-Chlorophenol	EPA 8270	<10	ug/L	CMG	03/08/2006
2-Methylphenol	EPA 8270	<10	ug/L	CMG	03/08/2006
3&4-Methylphenol	EPA 8270	<10	ug/L	CMG	03/08/2006
2-Nitrophenol	EPA 8270	<10	ug/L	CMG	03/08/2006
2,4-Dimethylphenol	EPA 8270	<10	ug/L	CMG	03/08/2006
Benzoic Acid	EPA 8270	<10	ug/L	CMG	03/08/2006
2,4-Dichlorophenol	EPA 8270	<10	ug/L	CMG	03/08/2006
4-Chloro-3-Methylphenol	EPA 8270	<20	ug/L	CMG	03/08/2006
2,4,6-Trichlorophenol	EPA 8270	<10	ug/L	CMG	03/08/2006
2,4,5-Trichlorophenol	EPA 8270	<10	ug/L	CMG	03/08/2006
2,4-Dinitrophenol	EPA 8270	<100	ug/L	CMG	03/08/2006
4-Nitrophenol	EPA 8270	<50	ug/L	CMG	03/08/2006
4,6-Dinitro-2-Methylphenol	EPA 8270	<50	ug/L	CMG	03/08/2006
Pentachlorophenol	EPA 8270	<50	ug/L	CMG	03/08/2006
BASE-NEUTRAL FRACTION:					
n-Nitrosodimethylamine	EPA 8270	<10	ug/L	CMG	03/08/2006
bis(2-Chloroethyl)Ether	EPA 8270	<10	ug/L	CMG	03/08/2006
1,3-Dichlorobenzene	EPA 8270	<10	ug/L	CMG	03/08/2006
1,4-Dichlorobenzene	EPA 8270	<10	ug/L	CMG	03/08/2006
Benzyl Alcohol	EPA 8270	<20	ug/L	CMG	03/08/2006
1,2-Dichlorobenzene	EPA 8270	<10	ug/L	CMG	03/08/2006
bis(2-Chloroisopropyl)Ether	EPA 8270	<10	ug/L	CMG	03/08/2006
n-Nitrosodi-n-Propylamine	EPA 8270	<10	ug/L	CMG	03/08/2006
Hexachloroethane	EPA 8270	<10	ug/L	CMG	03/08/2006
Nitrobenzene	EPA 8270	<10	ug/L	CMG	03/08/2006
Isophorone	EPA 8270	<10	ug/L	CMG	03/08/2006
bis(2-Chloroethoxy)Methane	EPA 8270	<10	ug/L	CMG	03/08/2006
1,2,4-Trichlorobenzene	EPA 8270	<10	ug/L	CMG	03/08/2006
Naphthalene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
4-Chloroaniline	EPA 8270	<20	ug/L	CMG	03/08/2006
Hexachlorobutadiene	EPA 8270	<10	ug/L	CMG	03/08/2006
2-Methylnaphthalene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
Hexachlorocyclopentadiene	EPA 8270	<50	ug/L	CMG	03/08/2006
2-Chloronaphthalene	EPA 8270	<10	ug/L	CMG	03/08/2006
2-Nitroaniline	EPA 8270	<50	ug/L	CMG	03/08/2006
Dimethylphthalate	EPA 8270	<10	ug/L	CMG	03/08/2006



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ANALYTICAL REPORT

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Soltanian

Project Name.: **Laboratory Testing**
Project No.: **08.0018838.00**

Date Received: **02/16/2006**
Date Reported: **03/08/2006**
Work Order No.: **0602-00108**

Sample ID: **Effluent** Sample No.: **003**
Sample Date: **02/15/2006**

Test Performed	Method	Results	Units	Tech	Analysis Date
Acenaphthylene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
2,6-Dinitrotoluene	EPA 8270	<10	ug/L	CMG	03/08/2006
3-Nitroaniline	EPA 8270	<50	ug/L	CMG	03/08/2006
Acenaphthene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
Dibenzofuran	EPA 8270	<10	ug/L	CMG	03/08/2006
2,4-Dinitrotoluene	EPA 8270	<10	ug/L	CMG	03/08/2006
Diethylphthalate	EPA 8270	<10	ug/L	CMG	03/08/2006
Fluorene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
4-Chlorophenyl Phenyl Ether	EPA 8270	<10	ug/L	CMG	03/08/2006
4-Nitroaniline	EPA 8270	<20	ug/L	CMG	03/08/2006
n-Nitrosodiphenylamine	EPA 8270	<10	ug/L	CMG	03/08/2006
4-Bromophenyl Phenyl Ether	EPA 8270	<10	ug/L	CMG	03/08/2006
Hexachlorobenzene	EPA 8270	<10	ug/L	CMG	03/08/2006
Phenanthrene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
Anthracene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
Carbazole	EPA 8270	<10	ug/L	CMG	03/08/2006
di-n-Butylphthalate	EPA 8270	<15	ug/L	CMG	03/08/2006
Fluoranthene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
Pyrene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
Butylbenzylphthalate	EPA 8270	<10	ug/L	CMG	03/08/2006
Benzo [a] Anthracene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
3,3'-Dichlorobenzidine	EPA 8270	<20	ug/L	CMG	03/08/2006
Chrysene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
bis(2-Ethylhexyl)Phthalate	EPA 8270	<10	ug/L	CMG	03/08/2006
di-n-Octylphthalate	EPA 8270	<10	ug/L	CMG	03/08/2006
Benzo [b] Fluoranthene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
Benzo [k] Fluoranthene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
Benzo [a] Pyrene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
Indeno [1,2,3-cd] Pyrene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
Dibenzo [a,h] Anthracene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
Benzo [g,h,i] Perylene	EPA 8270	<2.0	ug/L	CMG	03/08/2006
Surrogates:	EPA 8270				
***2-Fluorophenol	EPA 8270	30.1	% R	CMG	03/08/2006
***Phenol-D6	EPA 8270	18.0	% R	CMG	03/08/2006
***Nitrobenzene-D5	EPA 8270	81.7	% R	CMG	03/08/2006
***2-Fluorobiphenyl	EPA 8270	77.6	% R	CMG	03/08/2006
***2,4,6-Tribromophenol	EPA 8270	86.9	% R	CMG	03/08/2006



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Hopkinton, MA 01748
(781) 278-4700

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ANALYTICAL REPORT

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Sultanian

Project Name.: **Laboratory Testing**
Project No.: **08.0018838.00**

Date Received: **02/16/2006**
Date Reported: **03/08/2006**
Work Order No.: **0602-00106**

Sample ID: **Effluent** Sample No.: **003**
Sample Date: **02/15/2006**

Test Performed	Method	Results	Units	Tech	Analysis Date
***P-Terphenyl-D14	EPA 8270	82.3	% R	CMG	03/08/2006
Extraction	EPA 3510C	1.0	DF	JEJ	02/21/2006
PRIORITY POLLUTANT METALS				AJY	02/21/2006
Silver	EPA 6010B	<0.005	mg/L	AJY	02/21/2006
Arsenic	EPA 6010B	0.044	mg/L	AJY	02/22/2006
Beryllium	EPA 6010B	<0.005	mg/L	AJY	02/21/2006
Cadmium	EPA 6010B	<0.005	mg/L	AJY	02/21/2006
Chromium	EPA 6010B	<0.005	mg/L	AJY	02/21/2006
Copper	EPA 6010B	0.041	mg/L	AJY	02/22/2006
Mercury	EPA 7470A	<0.00050	mg/L	AJY	02/24/2006
Nickel	EPA 6010B	<0.010	mg/L	AJY	02/21/2006
Lead	EPA 6010B	<0.010	mg/L	AJY	02/21/2006
Antimony	EPA 6010B	<0.025	mg/L	AJY	02/21/2006
Selenium	EPA 6010B	<0.025	mg/L	AJY	02/21/2006
Zinc	EPA 6010B	0.017	mg/L	AJY	02/22/2006
Iron	EPA 6010B	0.198	mg/L	AJY	02/22/2006
SUBCONTRACTED ANALYTES					
Total Cyanide	EPA 335.2	<0.10	mg/L	XXX	02/22/2006
Total Suspended Solids	EPA 160.2	5.0	mg/L	XXX	02/20/2006
Residual Chlorine	EPA 330.5	<0.1	mg/L	XXX	02/17/2006
TPH BY METHOD 1664	EPA 1664	0.5	mg/L	XXX	02/21/2006

ENVIRONMENTAL CHEMISTRY LABORATORY
106 SOUTH ST, HOPKINTON, MA 01748
MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 6010B ANALYSIS
Metals by ICP

QUALITY CONTROL - AQUEOUS

DATE PREPARED: 2/21/2006

QC Sample Units	Method Blank mg/L	Lab Control Sample % Recovery
Acceptance Limits	Results	80-120
Analyte		
Silver (Ag)	<0.005	91.5
Aluminum (Al)	NA	NA
Arsenic (As)	<0.010	95.5
Boron (B)	NA	NA
Barium (Ba)	NA	NA
Beryllium (Be)	<0.005	96.6
Calcium (Ca)	NA	NA
Cadmium (Cd)	<0.005	95.3
Cobalt (Co)	NA	NA
Chromium (Cr)	<0.005	95.5
Copper (Cu)	<0.015	118
Iron (Fe)	<0.025	101
Magnesium (Mg)	NA	NA
Manganese (Mn)	NA	NA
Molybdenum (Mo)	NA	NA
Nickel (Ni)	<0.010	96.7
Lead (Pb)	<0.010	93.8
Antimony (Sb)	<0.025	102
Selenium (Se)	<0.025	99.6
Strontium (Sr)	NA	NA
Titanium (Ti)	NA	NA
Thallium (Tl)	NA	NA
Vanadium (V)	NA	NA
Zinc (Zn)	<0.010	101

Matrix Spike / Duplicate Spike performed as per method and
 reported if assigned on Chain of Custody.

GZA GEOENVIRONMENTAL, INC.
ENVIRONMENTAL CHEMISTRY LABORATORY
106 SOUTH ST, HOPKINTON, MA 01748
MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 7470A ANALYSIS
Mercury by Cold Vapor Atomic Absorption

QUALITY CONTROL - Aqueous

Date Prepared: 02/21/2006

QC Sample Units	Method Blank mg/L	Lab Control Sample % Recovery
Acceptance Limits	Results	80-120%
Analyte		
Mercury (Hg)	<0.00050	91.3

Matrix Spike / Duplicate Spike performed as per method and reported if assigned on Chain of Custody.

GZA GeoEnvironmental, Inc.
108 South Street
Hingham, MA 01743

EPA Method 6280 / 624.2 Aqueous Method Blank (MB) and Laboratory Control Sample (LCS) Data

Method Blank

Date Analyzed:	2/21/2006		Laboratory Control Sample
Volatile Organics	Conc. ug/L	Acceptance Limit	Date Analyzed:
dichlorodifluoromethane	< 1.0	< 1.0	Spikes Concentration = 20ug/L
chloroethane	< 1.0	< 1.0	dichlorodifluoromethane
vinyl chloride	< 1.0	< 1.0	chloroethane
bromochethane	< 1.0	< 1.0	vinyl chloride
chloroethane	< 1.0	< 1.0	bromochethane
bis(Chlorofluoromethane)	< 1.0	< 1.0	chloroethane
diethyl ether	< 2.0	< 2.0	bis(Chlorofluoromethane)
acetone	< 25	< 25	diethyl ether
1,1-dichloroethene	< 0.5	< 0.5	acetone
FRCON-113	< 1.0	< 1.0	1,1-dichloroethene
carbon disulfide	< 1.0	< 1.0	FRCON-113
dichloromethane	< 1.0	< 1.0	carbon disulfide
tert-butyl alcohol (TBA)	< 25	< 25	dichloromethane
neetyl-tert-butyl-ether	< 1.0	< 1.0	tert-butyl alcohol (TBA)
trans-1,2-dichloroethene	< 0.5	< 0.5	neetyl-tert-butyl-ether
1,1-dichloroethene	< 0.5	< 0.5	trans-1,2-dichloroethene
di-isopropyl ether (DPE)	< 1.0	< 1.0	1,1-dichloroethene
ethyl tert-butyl ether (EBE)	< 1.0	< 1.0	di-isopropyl ether (DPE)
2-butanone	< 25	< 25	ethyl tert-butyl ether (EBE)
2,2-dichloropropene	< 0.5	< 0.5	2-butanone
cis-1,2-dichloroethene	< 0.5	< 0.5	2,2-dichloropropene
chloroform	< 0.5	< 0.5	cis-1,2-dichloroethene
bromochloromethane	< 0.5	< 0.5	chloroform
tetrahydrofuran	< 6.0	< 6.0	bromochloromethane
1,1,1-trichloroethane	< 0.5	< 0.5	tetrahydrofuran
1,1-dichloropropane	< 0.5	< 0.5	1,1,1-trichloroethane
carbon tetrachloride	< 0.5	< 0.5	1,1-dichloropropane
1,2-dichloroethane	< 0.5	< 0.5	carbon tetrachloride
benzene	< 0.5	< 0.5	1,2-dichloroethane
tert-amyl methyl ether (TAME)	< 1.0	< 1.0	benzene
trichloroethene	< 0.5	< 0.5	tert-amyl methyl ether (TAME)
1,2-dichloropropane	< 0.5	< 0.5	trichloroethene
bromodichloromethane	< 0.5	< 0.5	1,2-dichloropropane
1,4-Dioxane	< 60	< 50	bromodichloromethane
dibromomethane	< 0.5	< 0.5	1,4-Dioxane
4-methyl-2-pentanone	< 1.0	< 1.0	dibromomethane
cis-1,3-dichloropropene	< 0.5	< 0.5	4-methyl-2-pentanone
toluene	< 0.5	< 0.5	cis-1,3-dichloropropene
trans-1,3-dichloropropene	< 0.5	< 0.5	toluene
1,1,2-trichloroethane	< 1.0	< 1.0	trans-1,3-dichloropropene
2-hexanone	< 1.0	< 1.0	1,1,2-trichloroethane
1,3-dichloropropane	< 0.5	< 0.5	2-hexanone
tetrachloroethene	< 0.5	< 0.5	1,3-dichloropropane
dibromo-chloromethane	< 0.5	< 0.5	tetrachloroethene
1,2-dibromoethans (EDB)	< 0.5	< 0.5	dibromo-chloromethane
chlorobenzene	< 0.5	< 0.5	1,2-dibromoethans (EDB)
1,1,1,2-tetrachloroethane	< 0.5	< 0.5	chlorobenzene
ethylbenzene	< 0.5	< 0.5	1,1,1,2-tetrachloroethane
1,1,2,2-tetrachloroethane	< 0.5	< 0.5	ethylbenzene
naphthalene	< 0.5	< 0.5	1,1,2,2-tetrachloroethane
o-xylene	< 0.5	< 0.5	naphthalene
styrene	< 0.5	< 0.5	o-xylene
bromoform	< 0.5	< 0.5	styrene
isopropylbenzene	< 0.5	< 0.5	bromoform
1,2,3-trichloropropene	< 0.5	< 0.5	isopropylbenzene
bromobenzene	< 0.5	< 0.5	1,2,3-trichloropropene
n-propylbenzene	< 0.5	< 0.5	bromobenzene
2-chlorotoluene	< 0.5	< 0.5	n-propylbenzene
1,3,5-trimethylbenzene	< 0.5	< 0.5	2-chlorotoluene
4-chlorotoluene	< 0.5	< 0.5	1,3,5-trimethylbenzene
tert-butyl-benzene	< 0.5	< 0.5	4-chlorotoluene
1,2,4-trimethylbenzene	< 0.5	< 0.5	tert-butyl-benzene
sec-butyl-benzene	< 0.5	< 0.5	1,2,4-trimethylbenzene
p-isopropyltoluene	< 2.5	< 2.5	sec-butyl-benzene
1,2-dichlorobenzene	< 0.5	< 0.5	p-isopropyltoluene
1,4-dichlorobenzene	< 0.5	< 0.5	1,3-dichlorobenzene
n-butylbenzene	< 0.5	< 0.5	1,4-dichlorobenzene
1,2-dichlorobenzene	< 0.5	< 0.5	n-butylbenzene
1,2-dibromo-3-chloropropane	< 1.0	< 1.0	1,2-dichlorobenzene
1,2,4-trichlorobenzene	< 0.5	< 0.5	1,2-dibromo-3-chloropropane
hexachlorobutadiene	< 0.5	< 0.5	1,2,4-trichlorobenzene
naphthalene	< 0.5	< 0.5	hexachlorobutadiene
1,2,3-trichlorobenzene	< 0.5	< 0.5	naphthalene

SMF criteria allows 5 compounds to be outside acceptance limits.

Surrogate:	Recovery (%)	Acceptance Limits
DIBROMOFLUOROMETHANE	102	70-130
1,2-DICHLOROETHANE-D4	102	70-130
TOLUENE-D8	98.4	70-130
4-BROMOFLUOROBENZENE	100	70-130
1,2-DICHLOROBENZENE-D4	99.1	70-130

Surrogate:	Recovery (%)	Acceptance Limits	Verdict
DIBROMOFLUOROMETHANE	103	70-130	ok
1,2-DICHLOROETHANE-D4	103	70-130	ok
TOLUENE-D8	99.7	70-130	ok
4-BROMOFLUOROBENZENE	100	70-130	ok
1,2-DICHLOROBENZENE-D4	100	70-130	ok

GZA GEOENVIRONMENTAL, INC.
ENVIRONMENTAL CHEMISTRY LABORATORY
106 SOUTH STREET, HOPKINTON, MA 01748 (781) 278-4710
MASSACHUSETTS LABORATORY I.D. NO. MA092

MADEP EPH
EXTRACTABLES IN AQUEOUS AND/OR SOLID MATRIX

QUALITY CONTROL

EXT. DATE: 2/17/06 Aqueous

Page 1 of 2

METHOD BLANK	QUEOUS ug/L-PPB	SOLID mg/kg - PPM
UNWEIGHTED CONC.		
C9-C18 Aliphatics	<100	<1.0
C19-C36 Aliphatics	<100	<1.0
C10-C22 Aromatics	<100	<2.0
C10-C22 Aromatics (adjusted)	<100	<1.0
TARGET COMPOUNDS		
Naphthalene	<5.0	<0.30
2-Methylnaphthalene	<5.0	<0.30
Acenaphthylene	<5.0	<0.30
Acenaphthene	<5.0	<0.30
Fluorene	<5.0	<0.30
Phenanthrene	<5.0	<0.30
Anthracene	<5.0	<0.30
Fluoranthene	<5.0	<0.30
Pyrene	<5.0	<0.30
Benzo(a)anthracene	<5.0	<0.30
Chrysene	<5.0	<0.30
Benzo(b)fluoranthene	<5.0	<0.30
Benzo(k)fluoranthene	<5.0	<0.30
Benzo(a)pyrene	<5.0	<0.30
Indeno(1,2,3-c,d)pyrene	<5.0	<0.30
Dibenzo(a,h)anthracene	<5.0	<0.30
Benzo(g,h,i)perylene	<5.0	<0.30
Surrogate:	Recovery (%)	Acceptance Limits
***1-Chlorooctadecane (Aliphatic)	60.3	40-140
***p-Terphenyl (Aromatic)	63.7	40-140
Fractionation Surrogate:		
***2-Bromonaphthalene	132	40-140

GZA GEOENVIRONMENTAL, INC.
ENVIRONMENTAL CHEMISTRY LABORATORY
106 SOUTH STREET, HOPKINTON, MA 01748 (781) 278-4710
MASSACHUSETTS LABORATORY I.D. NO. MA092

MADEP EPH
EXTRACTABLES IN AQUEOUS AND/OR SOLID MATRIX

QUALITY CONTROL

EXT. DATE: 2/17/06 Aqueous

LABORATORY CONTROL SAMPLE / DUPLICATE LCS	LCS Recovery (%)	LCS Dup Recovery (%)	Limits	RPD	Limits
Aliphatics:					
Nonane	31.8	22.6	30-140	33.8	< 25
Decane	43.8	33.4	40-140	26.9	< 25
Dodecane	42.1	40.0	40-140	5.12	< 25
Tetradecane	52.0	48.5	40-140	6.97	< 25
Hexadecane	59.2	60.2	40-140	1.68	< 25
Octadecane	64.0	69.1	40-140	7.66	< 25
Nonadecane	62.9	67.5	40-140	7.06	< 25
Eicosane	65.6	71.7	40-140	8.89	< 25
Docosane	63.7	69.7	40-140	9.00	< 25
Tetracosane	63.9	69.8	40-140	8.83	< 25
Hexacosane	62.5	68.0	40-140	8.43	< 25
Octacosane	62.1	67.5	40-140	8.33	< 25
Triacontane	62.1	67.6	40-140	8.48	< 25
Hexatricontane	61.3	66.2	40-140	7.69	< 25
Aromatics:					
Naphthalene	57.3	54.3	40-140	5.38	< 25
2-Methylnaphthalene	57.7	51.7	40-140	11.0	< 25
Acenaphthylene	70.0	63.3	40-140	10.1	< 25
Acenaphthene	85.9	80.3	40-140	6.74	< 25
Fluorene	71.3	66.3	40-140	7.27	< 25
Phenanthrene	70.3	69.5	40-140	1.17	< 25
Anthracene	79.2	77.4	40-140	2.30	< 25
Fluoranthene	78.4	78.7	40-140	0.38	< 25
Pyrene	76.8	74.3	40-140	3.31	< 25
Benzo(a)anthracene	68.4	68.5	40-140	0.15	< 25
Chrysene	82.4	82.5	40-140	0.12	< 25
Benzo(b)fluoranthene	59.0	58.7	40-140	0.51	< 25
Benzo(k)fluoranthene	89.0	95.5	40-140	7.05	< 25
Benzo(a)pyrene	73.6	69.4	40-140	5.87	< 25
Indeno(1,2,3-c,d)pyrene	45.7	50.5	40-140	9.98	< 25
Dibenz(a,h)anthracene	57.3	44.7	40-140	24.7	< 25
Benzo(g,h,i)perylene	66.1	49.1	40-140	29.5	< 25
Surrogate:					
***1-Chlorooctadecane (Aliphatic)	59.0	65.4	40-130	10.3	< 25
***p-Terphenyl (Aromatic)	77.2	77.6	40-130	0.52	< 25
Fractionation Surrogate:					
***2-Bromoanaphthalene	159	128	40-140	21.6	< 25
FRACTIONATION CHECKS					
	STANDARD (pass/fail)	COLUMN LOT NO.	LCS % in Aliphatic	LCSD % in Aliphatic	Acceptance Limit
Cartridge check	pass	S212-16			
Naphthalene			0.0	0.0	< 5
2-Methylnaphthalene			0.0	0.0	< 5



GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

Laboratory Identification Numbers:
MA and ME: MA092 NH: 2028
CT: PH0579 RI: LA000236
NELAC - NYS DOH: 11063

ANALYTICAL REPORT

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Soutanian

Project No.: 08.0018838.00
Work Order No.: 0602-00124
Date Received: 02/21/2006
Date Reported: 02/22/2006

SAMPLE INFORMATION

Date Sampled	Matrix	Laboratory ID	Sample ID
02/21/2006	Aqueous	0602-00124 001	Effluent



GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

Page 2 of 4

ANALYTICAL REPORT

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Sultanian

Project Name.: Laboratory Testing
Project No.: 08.0018838.00

Date Received: 02/21/2006
Date Reported: 02/22/2006
Work Order No.: 0802-00124

PROJECT NARRATIVE:

1. Sample Receipt

The samples were received on 02/21/06 via GZA courier, EC, FEDEX, or x hand delivered. The temperature of the temperature blank/x cooler air, was 2.1 degrees C. The samples were received intact for all requested analyses.

The samples were appropriately preserved in accordance with the method they reference.



GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

Page 3 of 4

ANALYTICAL REPORT

TMC Services, Inc.
One William Way
Bellingham, MA 02019

Mr. Dean Soltanian

Project Name.: **Laboratory Testing**

Date Received: **02/21/2006**

Project No.: **08.0018838.00**

Date Reported: **02/22/2006**

Work Order No.: **0802-00124**

Data Authorized By: Dee Klug Jr. P.E.

NELAC certification, as indicated by the NELAC Lab ID Number, is per analyte. For a complete list of NELAC validated analytes, please contact the laboratory.

Abbreviations:

% R = % Recovery

DF = Dilution Factor

DFS = Dilution Factor Solids

DO = Diluted Out

Method Key:

Method 8260: The current version of the method is 8260B.

Method 8021: The current version of the method is 8021B.

Method 8270: The current version of the method is 8270C.

Method 6010: The current version of the method is 6010B.

Please note that the laboratory signed copy of the chain of custody record is an integral part of the data report.

The laboratory report shall not be reproduced except in full without the written consent of the laboratory.

Soil data is reported on a dry weight basis unless otherwise specified.

Matrix Spike / Matrix Spike Duplicate sets are performed as per method and are reported at the end of the analytical report if assigned on the Chain of Custody.



Prepared for: GZA Laboratories
Reference ID: 08.0018838.00-Beachmont School

Project Summary 66227

Method 1668A

Concentrations shown in pg/L

BLANK	EFFLUENT
-------	----------

Analytes

DecaCB (#209)	< 145	< 289
Total MonoCB	< 17.4	< 27.1
Total DiCB	< 8.1	< 14.8
Total TriCB	< 13.1	< 25.4
Total TetraCB	< 33.6	< 62.3
Total PentaCB	[201]	[313]
Total HexaCB	[348]	[723]
Total HeptaCB	118	[311]
Total OctaCB	< 49.9	< 107
Total NonaCB	< 128	< 276
Extraction Date	2/24/2006	2/24/2006
Analysis Date	3/28/2006	3/29/2006
Primary Filename	W011412	W011413
Confirm Filename	N/A	N/A
Dilution Filename	N/A	N/A

Data Flag Descriptions:
< Not detected - Sample Specific Detection Limits reported
[.] EMPC Value
B Analyte detected in Blank

C Value reported from Confirmatory Analysis
D Value reported from Dilution Analysis
E Estimated Value - Above Calibration Range
J Estimated Value- Below Calibration Range

N/A Not Applicable
Q Quantitative Interference Present
S Analyte saturated
X Interference from Diphenyl Ethers

summary 1

Printed: 03/29/06 20:15

CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Biphenyls by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

by

Enhanced 1668A

Date: March 29, 2006

Client ID: GZA Laboratories

P.O. Number: 8-28523

Project Number: 66227

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Rev. 04/13/04

Overview

The sample was extracted and analyzed by enhanced procedures for EPA Method 1668A. Any particular difficulties encountered during the sample handling by the laboratory will be discussed in the QC remark section below. This report contains results from only the 1668A PCB analysis of the water sample.

Quality Control Samples

Laboratory method blanks are prepared along with each batch of samples.

A laboratory control spike (LCS) sample was extracted and analyzed along with the sample. A report summarizing the analyte recoveries for this sample is included in the data package.

Quality Control Remarks

The release of this particular set of GZA Laboratories analytical data by Eno River Labs, LLC was authorized by the Quality Control Chemist who has reviewed each sample data package individually following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below. Specific QC problems associated with this particular project are:

Sample Receipt: One water sample was received from GZA Laboratories in good condition on February 20, 2006 at 5°C and stored in a refrigerator at 4°C

Sample Preparation Laboratory: : None

Mass Spectrometry: None

Data Review: No target analytes were detected in the method blank above one-tenth of the levels found in the associated samples.

EMPC stands for Estimated Maximum Possible Concentration. An analyte is quantitated as an EMPC when the detected analyte meets the retention time criteria of a PCB, dioxin, or furan, but not the isotopic ratio criteria. Interferences may co-elute or cause quantitative interference, causing the peak ratio to be outside criteria. Low level peaks that are close to the detection limits can be significantly affected by instrument and chemical noise causing the ratio to be outside criteria. As a result, the reported value(s) should be considered estimated at the highest level possible.

By our interpretation, the analytical results in this project are valid based on the guidelines of enhanced procedures for EPA Method 1668A. Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the results. Should GZA Laboratories have any questions or comments regarding this data package, please feel free to contact customer service at (919)281-4013.

Released By,


Kenneth Varley

Report Preparation Chemist
For Eno River Labs, LLC

The total number of pages in this data package is : _____

Data Flags

In order to assist with data interpretation, data qualifier flags are used on the final reports. Please note that all data qualifier flags are subjective and are applied as consistently as possible. Each flag has been reviewed by two independent Chemists and the impact of the data qualifier flag on the quality of the data discussed above. The most commonly used flags are:

A 'B' flag is used to indicate that an analyte has been detected in the laboratory method blank as well as in an associated field sample. This flag denotes possible contribution of background laboratory contamination to the concentration or amount of that analyte detected in the field sample.

An 'E' flag is used to indicate a concentration based on an analyte to internal standard ratio which exceeds the range of the calibration curve. Values which are outside the calibration curve are estimates only.

An 'I' flag is used to indicate labeled standards have been interfered with on the GC column by coeluting, interferent peaks. The interference may have caused the standard's area to be overestimated. All quantitations relative to this standard, therefore, may be underestimated.

A 'J' flag is used to indicate a concentration based on an analyte to internal standard ratio which is below the calibration curve. Values which are outside the calibration curve are estimates only.

A 'PR' flag is used to indicate that a GC peak is poorly resolved. This resolution problem may be seen as two closely eluting peaks without a reasonable valley between the peak tops, overly broad peaks, or peaks whose shapes vary greatly from a normal distribution. The concentrations or amounts reported for such peaks are most likely overestimated.

A 'Q' flag is used to indicate the presence of QC ion instabilities caused by quantitative interferences.

An 'RO' flag is used to indicate that a labeled standard has an ion abundance ratio that is outside of the acceptable QC limits, most likely due to a coeluting interference. This may have caused the percent recovery of the standard to be overestimated. All quantitations versus this standard, therefore, may be underestimated.

An 'S' flag indicates that the response of a specific isomer has exceeded the normal dynamic range of the mass spectrometer detection system. The corresponding signal is saturated and the reported analyte concentration is a 'minimum estimate'. When the 'S' qualifier is used in the reporting of 'totals', there is saturation of one (not necessarily from

a specific isomer) or more saturated signals for a given class of compounds. Results for saturated analytes are reported as greater than the upper calibration limit.

A 'U' flag is used to indicate that a specific isomer cannot be resolved from a large, co-eluting interferent GC peak. The specific isomer is reported as not detected as a valid concentration cannot be determined. The calculated detection limit, therefore, should be considered an underestimated value.

A 'V' flag is used to indicate that, although the percent recovery of a labeled standard may be below a specific QC limit, the signal-to-noise ratio of the peak is greater than ten-to-one. The standard is considered reliably quantifiable. All quantitations derived from the standard are considered valid as well.

An 'X' flag is used to indicate that a polychlorodibenzofuran (PCDF) peak has eluted at the same time as the associated diphenyl ether (DPE) and that the DPE peak intensity is at least ten percent of the total PCDF peak intensity. Total PCDF values are flagged 'X' if the total DPE contribution to the total PCDF value is greater than ten percent. All PCDF peaks that are significantly influenced by the presence of DPE peaks are either reported as "estimated maximum possible concentration (EMPC) values without regard to the isotopic abundance ratio, or are included in the detection limit value depending on the analytical method.

ENO RIVER LABS., LLC
LAB CONTROL SPIKE RECOVERY ANALYSIS

12 of 141

Project: 66227
Matrix: WATER
Method: PCB5

Isomer	W011412 ID: BLANK	W011414 ID: LCS	With Spike (pg/l)	Percent Recovery
Tetra PCB #81	ND	11280		113
Tetra PCB #77	ND	11740		117
Penta PCB #123	ND	9050		90.5
Penta PCB #118	[64.3]	9080		90.2
Penta PCB #114	ND	8960		89.6
Penta PCB #105	ND	10010		100
Penta PCB #126	ND	10180		102
Hexa PCB #167	ND	9150		91.5
Hexa PCB #156	ND	9600		96.0
Hexa PCB #157	ND	9410		94.1
Hexa PCB #169	ND	10150		101
Hepta PCB #189	ND	11380		114

ND: Not Detected

MILES 4.22.39

NA: Not Applicable

GRY_PSUM v1.12

[...]: EMPC Value

Processed By: Mh

Date: 03/29/06

SAMPLE
DATA

Lab Project: 66227 Enhanced 1668A Polychlorinated Biphenyls Analysis
 Client Sample: BLANK Analysis File: W011412

Client Project:	08.0018838.00-Beachmont School	Date Received:	/ /	Spike File:	SPPCB81S
Sample Matrix:	WATER	Date Extracted:	02/24/2006	ICal:	WP53286
Lab ID:	BLANK	Date Analyzed:	03/28/2006	ConCal:	W011404
Sample Size:	1.000 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	W011412	% Lipid:	n/a
GC Column:	DB-35	Analyst:	JSY	% Solids:	n/a

DecaCB (#209)	ND	145	—
Total MonoCB	ND	17.4	—
Total DiCB	ND	8.1	—
Total TriCB	ND	13.1	—
Total TetraCB	ND	33.6	—
Total PentaCB	136	1	201
Total HexaCB	260	2	346
Total HeptaCB	118	1	—
Total OctaCB	ND	49.9	—
Total NonaCB	ND	128	—

¹³ C ₆ -4-MonoCB (#3)	1150	46.0	25%-150%	2.90	7:37	—
¹³ C ₁₂ -4,4'-DiCB (#15)	2640	52.9	25%-150%	1.52	10:16	—
¹³ C ₁₂ -2,4,4'-TriCB (#28)	5440	54.4	25%-150%	1.00	11:20	—
¹³ C ₁₂ -3,3',4,4'-TetraCB (#77)	7630	76.3	25%-150%	0.76	17:23	—
¹³ C ₁₂ -3,3',4,4',5-PentaCB (#126)	6290	62.9	25%-150%	0.59	20:49	—
¹³ C ₁₂ -3,3',4,4',5,5'-HexaCB (#169)	7200	72.0	25%-150%	1.20	24:08	—
¹³ C ₁₂ -2,2',3,4,4',5,5'-HeptaCB (#180)	6590	65.9	25%-150%	0.99	22:42	—
¹³ C ₁₂ -2,2',3,3',4,4',5,5'-OctaCB (#194)	7720	77.2	25%-150%	0.84	27:39	—
¹³ C ₁₂ -DecaCB (#209)	14780	73.9	25%-150%	1.16	31:58	—

¹³ C ₁₂ -2,2',4,4',5,5'-HexaCB (#153)	6140	61.4	25%-150%	1.22	18:29	—
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¹³ C ₁₂ -3,3',5,5'-TetraCB (#80)	0.74	14:08	—
¹³ C ₁₂ -2,2',3,3',4,4'-HexaCB (#128)	1.18	21:46	—

Data Reviewer: TM 03/29/2006

Lab Project: 66227 Enhanced 1668A Polychlorinated Biphenyls Analysis
 Client Sample: EFFLUENT Analysis File: W011413

Client Project:	08.0018838.00-Beachmont School			
Sample Matrix:	WATER	Date Received:	02/20/2006	Spike File: SPPCB81S
Lab ID:	414-50-1A	Date Extracted:	02/24/2006	ICal: WP53286
		Date Analyzed:	03/29/2006	ConCal: W011404
Sample Size:	0.480 L	Dilution Factor:	n/a	% Moisture: n/a
Dry Weight:	n/a	Blank File:	W011412	% Lipid: n/a
GC Column:	DB-35	Analyst:	JSY	% Solids: n/a

DecaCB (#209)	ND	289	—
Total MonoCB	ND	27.1	—
Total DiCB	ND	14.8	—
Total TriCB	ND	25.4	—
Total TetraCB	ND	62.3	—
Total PentaCB	102	1	313
Total HexaCB	409	2	723
Total HeptaCB	206	1	311
Total OctaCB	ND	107	—
Total NonaCB	ND	276	—

¹³ C ₆ -4-MonoCB (#3)	2960	56.8	25%-150%	3.12	7:37	—
¹³ C ₁₂ -4,4'-DiCB (#15)	6530	62.6	25%-150%	1.52	10:16	—
¹³ C ₁₂ -2,4,4'-TriCB (#28)	12510	60.1	25%-150%	1.02	11:19	—
¹³ C ₁₂ -3,3',4,4'-TetraCB (#77)	17200	82.5	25%-150%	0.75	17:23	—
¹³ C ₁₂ -3,3',4,4'-PentaCB (#126)	14150	67.9	25%-150%	0.58	20:48	—
¹³ C ₁₂ -2,2',3,4,4',5'-HexaCB (#138)	14610	70.1	25%-150%	1.18	20:06	—
¹³ C ₁₂ -3,3',4,4',5,5'-HexaCB (#169)	16520	79.3	25%-150%	1.17	24:07	—
¹³ C ₁₂ -2,2',3,4,4',5,5'-HeptaCB (#180)	15240	73.2	25%-150%	1.03	22:42	—
¹³ C ₁₂ -2,2',3,3',4,4',5,5'-OctaCB (#194)	17970	86.3	25%-150%	0.82	27:39	—
¹³ C ₁₂ -DecaCB (#209)	35290	84.7	25%-150%	1.17	31:57	—

¹³ C ₁₂ -2,2',4,4',5,5'-HexaCB (#153)	14260	68.4	25%-150%	1.19	18:29	—
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Lab Project: 66227 Enhanced 1668A Polychlorinated Biphenyls Analysis
Client Sample: EFFLUENT Analysis File: W011413

¹³ C ₁₂ -3,3',5,5'-TetraCB (#80)	0.74	14:08
¹³ C ₁₂ -2,2',3,3',4,4'-HexaCB (#128)	1.21	21:47

Data Reviewer: M 03/29/2006

Lab Project: 66227 Enhanced 1668A Polychlorinated Biphenyls Analysis
 Client Sample: LCS Analysis File: W011414

Client Project:	08.0018838.00-Beachmont School	Date Received:	/ /	Spike File:	SPPCB81S
Sample Matrix:	WATER	Date Extracted:	02/24/2006	ICal:	WP53286
Lab ID:	LCS	Date Analyzed:	03/29/2006	ConCal:	W011404
Sample Size:	1.000 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	W011412	% Lipid:	n/a
GC Column:	DB-35	Analyst:	JSY	% Solids:	n/a

3,4,4',5-TetraCB (#81)	11280		0.71	16:53	—
3,3',4,4'-TetraCB (#77)	11740		0.71	17:24	—
2',3,4,4',5-PentaCB (#123)	9050		0.60	17:50	—
2,3',4,4',5-PentaCB (#118)	9080		0.59	18:00	—
2,3,4,4',5-PentaCB (#114)	8960		0.60	18:41	—
2,3,3',4,4'-PentaCB (#105)	10010		0.60	19:33	—
3,3',4,4',5-PentaCB (#126)	10180		0.64	20:50	—
2,3',4,4',5,5'-HexaCB (#167)	9150		1.14	21:08	—
2,3,3',4,4',5-HexaCB (#156)	9600		1.13	22:31	—
2,3,3',4,4',5'-HexaCB (#157)	9410		1.10	22:49	—
3,3',4,4',5,5'-HexaCB (#169)	10150		1.16	24:09	—
2,3,3',4,4',5,5'-HeptaCB (#189)	11380		1.04	25:52	—

¹³ C ₁₂ -3,3',4,4'-TetraCB (#77)	8300	83.0	25%-150%	0.77	17:23	—
¹³ C ₁₂ -3,3',4,4',5-PentaCB (#126)	7010	70.1	25%-150%	0.58	20:48	—
¹³ C ₁₂ -3,3',4,4',5,5'-HexaCB (#169)	8370	83.7	25%-150%	1.20	24:08	—
¹³ C ₁₂ -2,2',3,4,4',5,5'-HeptaCB (#180)	7820	78.2	25%-150%	1.00	22:42	—

¹³ C ₁₂ -2,2',4,4',5,5'-HexaCB (#153)	6650	66.5	25%-150%	1.16	18:29	—
¹³ C ₁₂ -3,3',5,5'-TetraCB (#80)				0.73	14:08	—
¹³ C ₁₂ -2,2',3,3',4,4'-HexaCB (#128)				1.22	21:46	—

Data Reviewer: M 03/29/2006

Date: 03/28/2006

Eno River Labs, LLC

Continuing Calibration for W011404

Analysis Date.....: 03/28/2006

Method.....: PCB5

Operator.....: JSY

Instrument...: W

Init Calibration.: WP53286

Std.Conc....: 20.00

ICal Date.....: 03/28/2006

Analyte Summary Name	RF	Ratio 1&2	RT Lo/High	RT	Rel.	RT	ICal	Delta
							RF	%D
Mono PCB #1	0.899	3.15	6:41 7:48	6:51	0.8990	0.877	0.022	2.5%
TOTAL MONO	0.899	3.15				0.877	0.022	2.5%
Di PCB #8	1.023	1.52	7:52 10:28	8:57	0.8706	1.170	-0.147	-12.5%
Di PCB #15	1.005	1.52		10:17	1.0000	1.181	-0.176	-14.9%
TOTAL DI	2.029	1.52				2.351	-0.322	-13.7%
Tri PCB #18	0.648	0.99	9:14 13:46	9:57	0.8782	0.692	-0.044	-6.3%
Tri PCB #28	1.085	0.98		11:21	1.0018	1.215	-0.130	-10.7%
TOTAL TRI	1.733	0.98				1.907	-0.174	-9.1%
Tetra PCB #52	1.283	0.66	11:04 17:36	12:16	1.0016	1.391	-0.108	-7.8%
Tetra PCB #49	1.201	0.66		12:25	1.0139	1.319	-0.118	-8.9%
Tetra PCB #44	1.030	0.67		13:11	1.0759	1.133	-0.103	-9.1%
Tetra PCB #70	1.474	0.64***		13:51	1.1306	1.650	-0.176	-10.6%
Tetra PCB #66	1.398	0.66		14:42	1.2000	1.571	-0.173	-11.0%
Tetra PCB #81	0.969	0.68		16:54	0.9713	1.069	-0.100	-9.3%
Tetra PCB #77	1.023	0.68		17:25	1.0011	1.135	-0.112	-9.9%
TOTAL TETRA	1.197	0.67				1.324	-0.127	-9.6%
Penta PCB #101	1.150	0.56	12:42 21:01	15:14	1.0020	1.300	-0.150	-11.5%
Penta PCB #87	0.934	0.57		16:41	1.0974	1.046	-0.112	-10.7%
Penta PCB #110	1.328	0.56		17:06	1.1250	1.509	-0.181	-12.0%
Penta PCB #123	1.029	0.62		17:51	0.8573	1.108	-0.079	-7.1%
Penta PCB #118	1.082	0.63		18:01	0.8655	1.201	-0.119	-9.9%
Penta PCB #114	0.999	0.62		18:42	0.8982	1.099	-0.100	-9.1%

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Date: 03/28/2006 Eno River Labs, LLC
 Continuing Calibration for W011404

Penta PCB #105	0.943	0.64		19:34	0.9400	1.068	-0.125	-11.7%
Penta PCB #126	0.871	0.63		20:50	1.0005	1.011	-0.140	-13.9%
TOTAL PENTA	1.042	0.61				1.168	-0.126	-10.8%
Hexa PCB #153	1.208	1.14	14:27	18:31	0.9200	1.338	-0.130	-9.7%
Hexa PCB #138	0.979	1.16	24:21			1.109	-0.130	-11.7%
Hexa PCB #167	1.117	1.09		21:09	0.8758	1.298	-0.181	-13.9%
Hexa PCB #128	0.763	1.09		21:49	1.0840	0.869	-0.106	-12.2%
Hexa PCB #156	1.065	1.12		22:31	0.9325	1.216	-0.151	-12.4%
Hexa PCB #157	1.105	1.19		22:51	0.9462	1.273	-0.168	-13.2%
Hexa PCB #169	0.857	1.16		24:11	1.0012	0.982	-0.125	-12.7%
TOTAL HEXA	1.014	1.14				1.155	-0.141	-12.2%
Hepta PCB #184	2.169	0.99	17:59	18:27	0.8121	2.392	-0.223	-9.3%
Hepta PCB #187	1.240	1.00	26:04	20:21	0.8957	1.422	-0.182	-12.8%
Hepta PCB #183	1.304	0.98		20:36	0.9067	1.524	-0.220	-14.4%
Hepta PCB #180	0.962	0.98		22:44	1.0004	1.135	-0.173	-15.3%
Hepta PCB #170	1.010	1.05		24:36	1.0827	1.142	-0.132	-11.6%
Hepta PCB #189	1.237	1.06		25:53	1.1391	1.394	-0.157	-11.3%
TOTAL HEPTA	1.584	1.01				1.802	-0.218	-12.1%
Octa PCB #195	1.084	0.84	21:28	26:55	0.9725	1.221	-0.137	-11.2%
Octa PCB #194	0.913	0.82	27:52	27:42	1.0007	1.032	-0.119	-11.6%
TOTAL OCTA	1.997	0.83				2.252	-0.255	-11.3%
Nona PCB #206	0.765	0.72	25:44	29:54	1.0802	0.876	-0.111	-12.7%
TOTAL NONA	0.765	0.72	30:05			0.876	-0.111	-12.7%
Deca PCB #209	1.095	1.10	31:51	32:02	1.0009	1.256	-0.161	-12.8%
			32:11					

Date: 03/28/2006

Eno River Labs, LLC
Continuing Calibration for W011404

Other Standard Summary

Name	RF	Ratio	RT 1&2	RT Lo/High	ICal		Delta	
					Rel.	RT	RF	RF
13C12 PCB #60	0.923	0.77		11:15	15:40	0.9006	0.936	-0.013
				18:15				-1.3%
13C12 PCB #153	1.498	1.20		17:09	18:31	0.7669	1.469	0.029
				25:09				2.0%
13C12 PCB #202	0.746	0.85		20:41	21:37	0.7811	0.749	-0.003
				28:41				-0.4%

Internal Standard Summary

Name	RF	Ratio	RT 1&2	RT Lo/High	ICal		Delta	
					Rel.	RT	RF	RF
13C6 PCB #3	1.704	3.01		6:37	7:37	1.0000	1.978	-0.274
				8:37				-13.8%
13C12 PCB #15	1.718	1.50		9:17	10:17	1.0000	1.638	0.080
				11:17				4.9%
13C12 PCB #28	1.320	1.04		10:20	11:20	1.0000	1.297	0.023
				12:20				1.8%
13C12 PCB #52	0.801	0.77		11:15	12:15	1.0000	0.792	0.009
				18:15				1.2%
13C12 PCB #77	0.821	0.74			17:24	1.0000	0.862	-0.041
13C12 PCB #101	0.981	0.62		14:12	15:12	1.0000	0.994	-0.013
13C12 PCB #126	1.653	0.59		21:12				-1.3%
13C12 PCB #138	1.326	1.21		17:09	20:08	1.0000	1.321	0.005
13C12 PCB #169	1.161	1.22		25:09				0.4%
13C12 PCB #180	0.790	1.03		21:43	22:43	1.0000	0.823	-0.033
13C12 PCB #194	0.582	0.84		23:43				-4.0%
13C12 PCB #209	0.503	1.18		20:41	27:41	1.0000	0.603	-0.021
				28:41				-3.4%
				31:00	32:00	1.0000	0.527	-0.024
				33:00				-4.5%

Recovery Standard Summary

Name	RF	Ratio	RT 1&2	RT Lo/High	ICal		Delta	
					Rel.	RT	RF	RF
13C12 PCB #80	1.000	0.76		11:15	14:09	0.8132	1.000	0.000
				18:15				0.0%
13C12 PCB #128	1.000	1.15		17:09	21:48	0.9027	1.000	0.000
				25:09				0.0%

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Listing of W011404
GC Peaks / Ratio / Ret. Time

Compound/

M_Z..... RT. OK Ratio Total.Area... Area.Peak.1.. Area.Peak.2.. Rel.RT Compound.Name.. ID..

Mono PCB	2.62-3.54						
188-190	6:51	3.15	1,663.26	1,262.43	400.83	0.899	Mono PCB #1 AN
188-190		1 Peak					
13C6-Mono PCB	2.62-3.54						
194-196	7:37	3.01	2,313.49	1,736.06	577.43	1.000	13C6 PCB #3 IS0
194-196		1 Peak					

----- Above: Mono PCB / Di PCB Follows -----

Di PCB	1.31-1.77						
222-224	8:57	1.52	1,908.85	1,150.37	758.48	0.871	Di PCB #8 AN
	10:17	1.52	1,874.98	1,131.17	743.81	1.000	Di PCB #15 AN
222-224		2 Peaks					
13C12-Di PCB	1.31-1.77						
234-236	10:17	1.50	4,662.98	2,794.90	1,868.08	1.000	13C12 PCB #15 IS1
234-236		1 Peak					

----- Above: Di PCB / Tri PCB Follows -----

Tri PCB	0.88-1.18						
256-258	9:57	0.99	928.93	462.93	466.00	0.878	Tri PCB #18 AN
	11:21	0.98	1,554.60	768.04	786.56	1.002	Tri PCB #28 AN
256-258		2 Peaks					
13C12-Tri PCB	0.88-1.18						
268-270	11:20	1.04	7,166.48	3,649.55	3,516.93	1.000	13C12 PCB #28 IS2
268-270		1 Peak					

----- Above: Tri PCB / Tetra PCB Follows -----

Tetra PCB	0.65-0.89						
290-292	12:16	0.66	5,579.16	2,222.41	3,356.75	1.002	Tetra PCB #52 AN
	12:25	0.66	5,225.53	2,085.88	3,139.65	1.014	Tetra PCB #49 AN
	13:11	0.67	4,482.59	1,804.03	2,678.56	1.076	Tetra PCB #44 AN
	13:51 RO	0.64	6,413.80	2,510.89	3,902.91	1.131	Tetra PCB #70 AN
	14:42	0.66	6,083.61	2,422.09	3,661.52	1.200	Tetra PCB #66 AN
	16:54	0.68	4,322.84	1,753.64	2,569.20	0.971	Tetra PCB #81 AN
	17:25	0.68	4,562.45	1,847.46	2,714.99	1.001	Tetra PCB #77 AN
290-292		7 Peaks					
13C12-Tetra PCB	0.65-0.89						
302-304	12:15	0.77	4,350.11	1,886.48	2,463.63	1.000	13C12 PCB #52 IS3
	14:09	0.76	5,429.83	2,337.81	3,092.02	0.813	13C12 PCB #80 RS1
	15:40	0.77	5,014.37	2,175.96	2,838.41	0.901	13C12 PCB #60 SUR1
	17:24	0.74	4,459.55	1,898.70	2,560.85	1.000	13C12 PCB #77 IS4
302-304		4 Peaks					

----- Above: Tetra PCB / Penta PCB Follows -----

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Listing of W011404
GC Peaks / Ratio / Ret. Time

Compound/

M_Z.... RT. OK Ratio Total.Area... Area.Peak.1.. Area.Peak.2.. Rel.RT Compound.Name.. ID..

Penta PCB 0.52-0.70

324-326	15:14	0.56	2,531.89	913.97	1,617.92	1.002	Penta PCB #101	AN
	16:41	0.57	2,055.50	743.82	1,311.68	1.097	Penta PCB #87	AN
	17:06	0.56	2,924.83	1,045.56	1,879.27	1.125	Penta PCB #110	AN
	17:51	0.62	3,815.30	1,464.58	2,350.72	0.857	Penta PCB #123	AN
	18:01	0.63	4,012.96	1,544.86	2,468.10	0.866	Penta PCB #118	AN
	18:42	0.62	3,702.99	1,416.22	2,286.77	0.898	Penta PCB #114	AN
	19:34	0.64	3,495.94	1,357.84	2,138.10	0.940	Penta PCB #105	AN
	20:50	0.63	3,228.20	1,241.78	1,986.42	1.001	Penta PCB #126	AN

324-326 8 Peaks

13C12-Penta PCB 0.52-0.70

336-338	15:12	0.62	2,201.63	841.97	1,359.66	1.000	13C12 PCB #101	IS5
	20:49	0.59	3,707.65	1,379.04	2,328.61	1.000	13C12 PCB #126	IS6

336-338 2 Peaks

----- Above: Penta PCB / Hexa PCB Follows -----

Hexa PCB 1.05-1.43

360-362	18:31	1.14	3,591.52	1,916.77	1,674.75	0.920	Hexa PCB #153	AN
	20:09	1.16	2,911.46	1,561.26	1,350.20	1.001	Hexa PCB #138	AN
	21:09	1.09	2,910.33	1,519.29	1,391.04	0.876	Hexa PCB #167	AN
	21:49	1.09	2,269.91	1,186.21	1,083.70	1.084	Hexa PCB #128	AN
	22:31	1.12	2,774.92	1,464.83	1,310.09	0.933	Hexa PCB #156	AN
	22:51	1.19	2,879.40	1,564.12	1,315.28	0.946	Hexa PCB #157	AN
	24:11	1.16	2,232.93	1,197.99	1,034.94	1.001	Hexa PCB #169	AN

360-362 7 Peaks

13C12-Hexa PCB 1.05-1.43

372-374	18:31	1.20	3,361.17	1,835.62	1,525.55	0.767	13C12 PCB #153	ALTS
	20:08	1.21	2,973.72	1,626.59	1,347.13	1.000	13C12 PCB #138	IS7
	21:48	1.15	2,243.24	1,199.67	1,043.57	0.903	13C12 PCB #128	RS2
	24:09	1.22	2,604.77	1,433.65	1,171.12	1.000	13C12 PCB #169	IS8

372-374 4 Peaks

----- Above: Hexa PCB / Hepta PCB Follows -----

Hepta PCB 0.88-1.20

394-396	18:27	0.99	3,845.04	1,909.71	1,935.33	0.812	Hepta PCB #184	AN
	20:21	1.00	2,197.37	1,100.32	1,097.05	0.896	Hepta PCB #187	AN
	20:36	0.98	2,311.52	1,143.10	1,168.42	0.907	Hepta PCB #183	AN
	22:44	0.98	1,704.54	841.87	862.67	1.000	Hepta PCB #180	AN
	24:36	1.05	1,789.62	915.69	873.93	1.083	Hepta PCB #170	AN
	25:53	1.06	2,192.59	1,129.45	1,063.14	1.139	Hepta PCB #189	AN

394-396 6 Peaks

13C12-Hepta PCB 0.88-1.20

406-408	22:43	1.03	1,772.57	901.37	871.20	1.000	13C12 PCB #180	IS9

----- Above: Hepta PCB / Octa PCB Follows -----

Page No. 3 Listing of W011404
03/28/2006 GC Peaks / Ratio / Ret. Time

Compound/

M_Z.... .RT. OK Ratio Total.Area... Area.Peak.1.. Area.Peak.2.. Rel.RT Compound.Name.. ID..

Octa PCB 0.76-1.02
428-430 26:55 0.84 1,416.04 644.64 771.40 0.973 Octa PCB #195 AN
27:42 0.82 1,191.84 537.05 654.79 1.001 Octa PCB #194 AN
428-430 2 Peaks

13C12-Octa PCB 0.76-1.02
440-442 21:37 0.85 1,672.74 766.79 905.95 0.781 13C12 PCB #202 SUR2
27:41 0.84 1,306.03 597.41 708.62 1.000 13C12 PCB #194 IS10
440-442 2 Peaks

----- Above: Octa PCB / Nona PCB Follows -----

Nona PCB 0.66-0.90
462-464 29:54 0.72 1,997.05 838.68 1,158.37 1.080 Nona PCB #206 AN
462-464 1 Peak

----- Above: Nona PCB / Deca PCB Follows -----

Deca PCB 1.00-1.36
498-500 32:02 1.10 2,472.26 1,294.60 1,177.66 1.001 Deca PCB #209 AN
498-500 1 Peak

13C12-Deca PCB 1.00-1.36
510-512 32:00 1.18 2,256.83 1,221.56 1,035.27 1.000 13C12 PCB #209 IS11
510 1 Peak

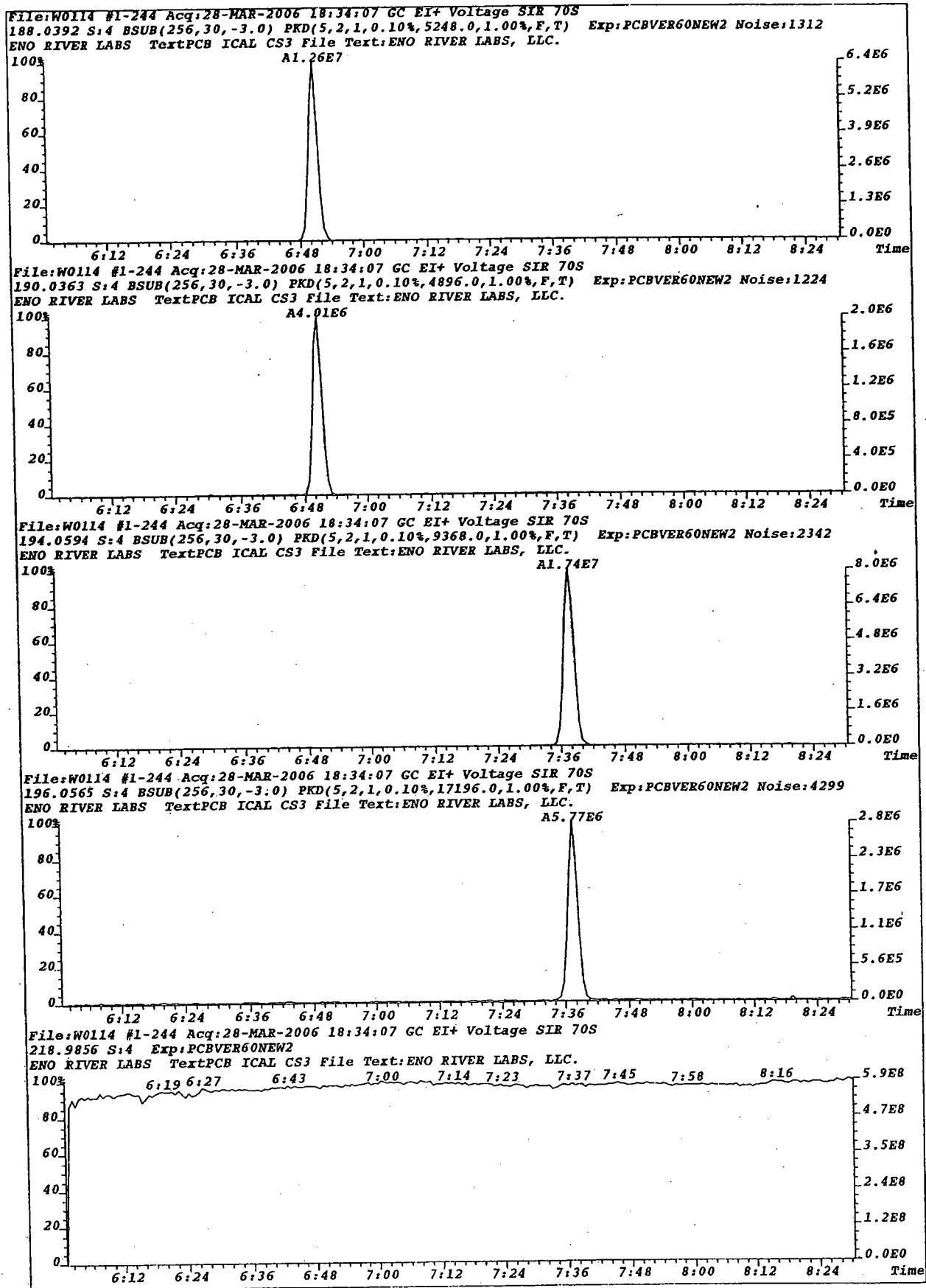
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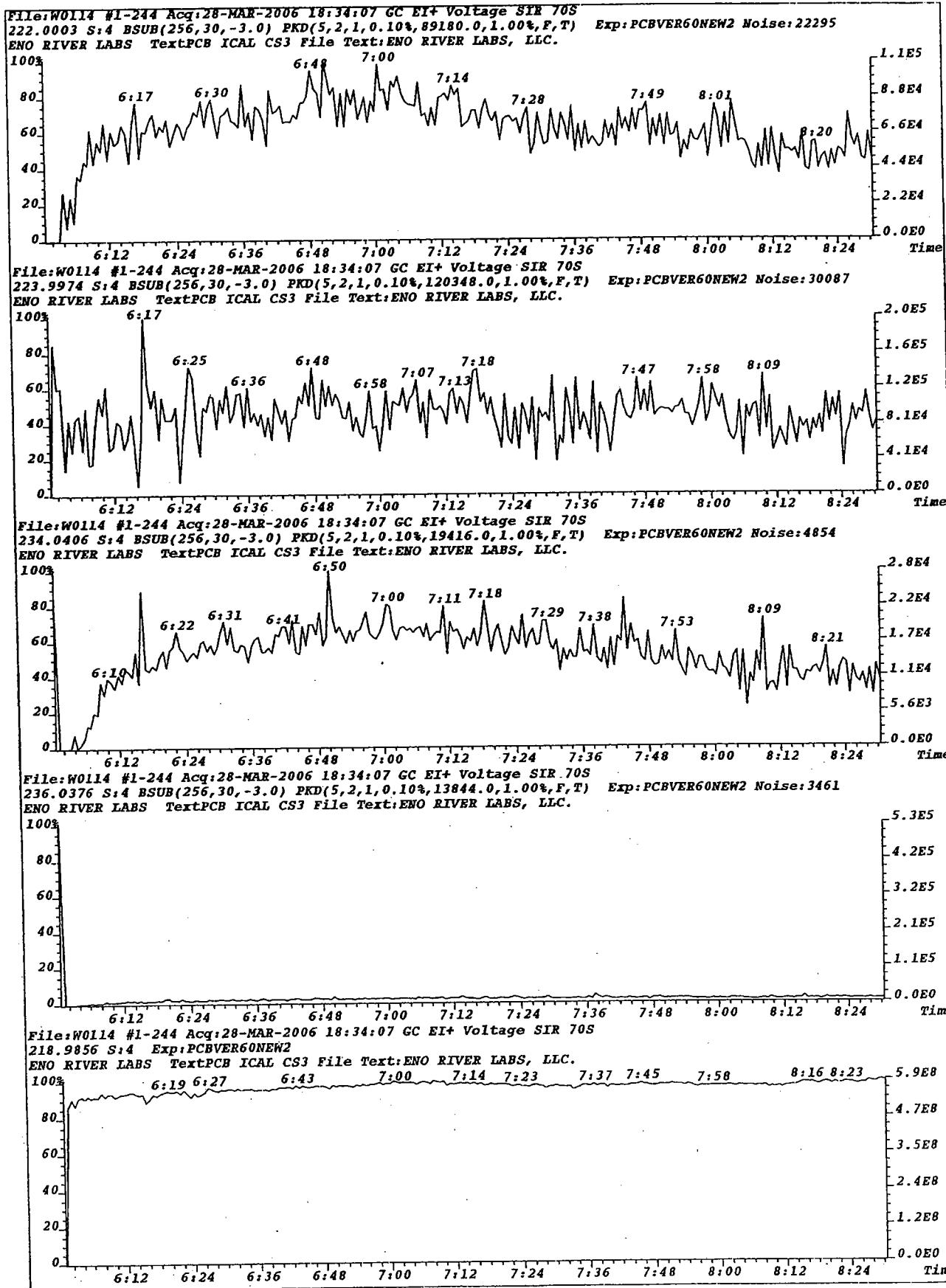
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.RT. - Retention Time (mm:ss)
Rat.1 - Ratio of M/M+2 Ions
OK - RO=Ratio Outside Limits
Rel.RT - Relative Retention Time

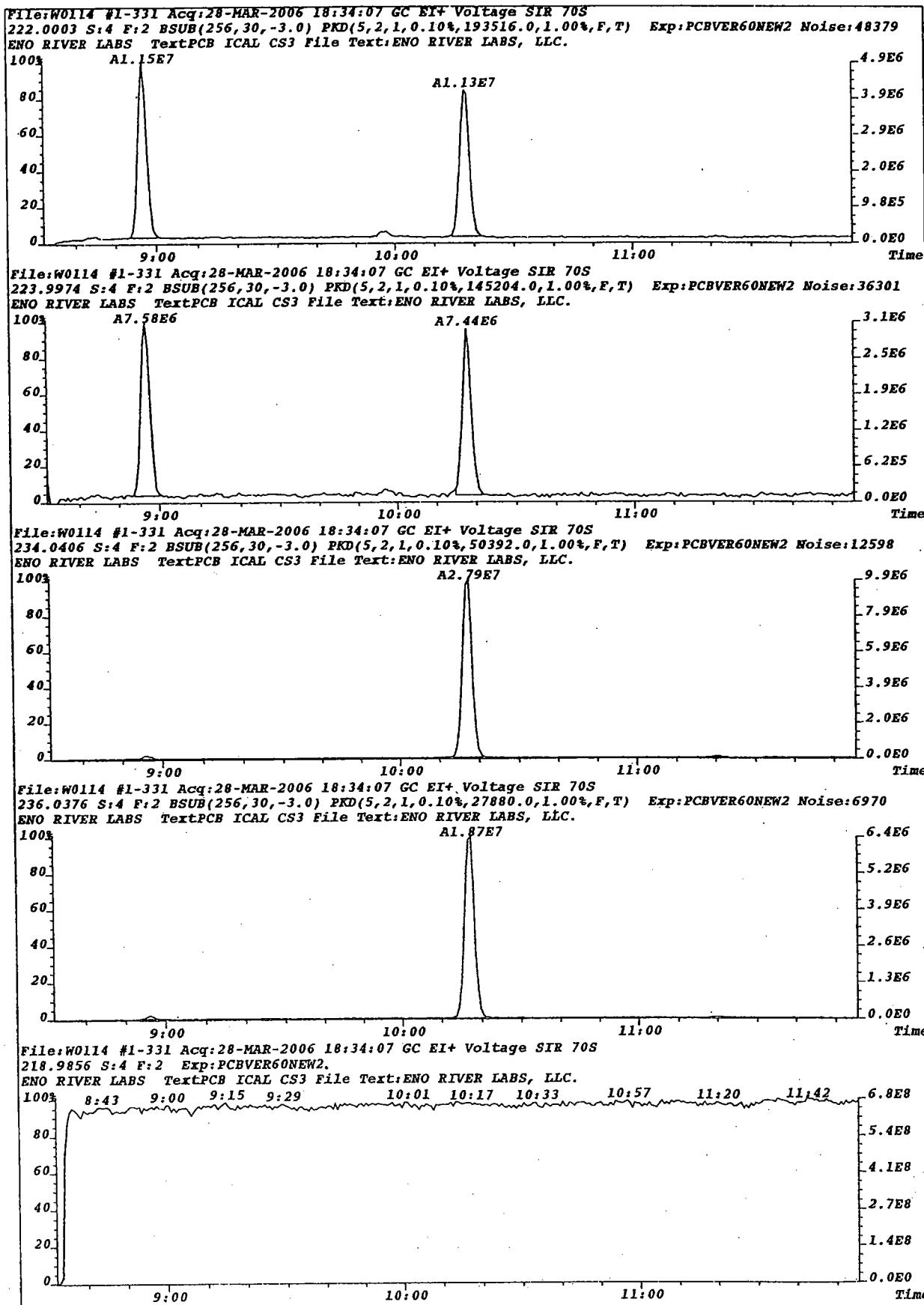
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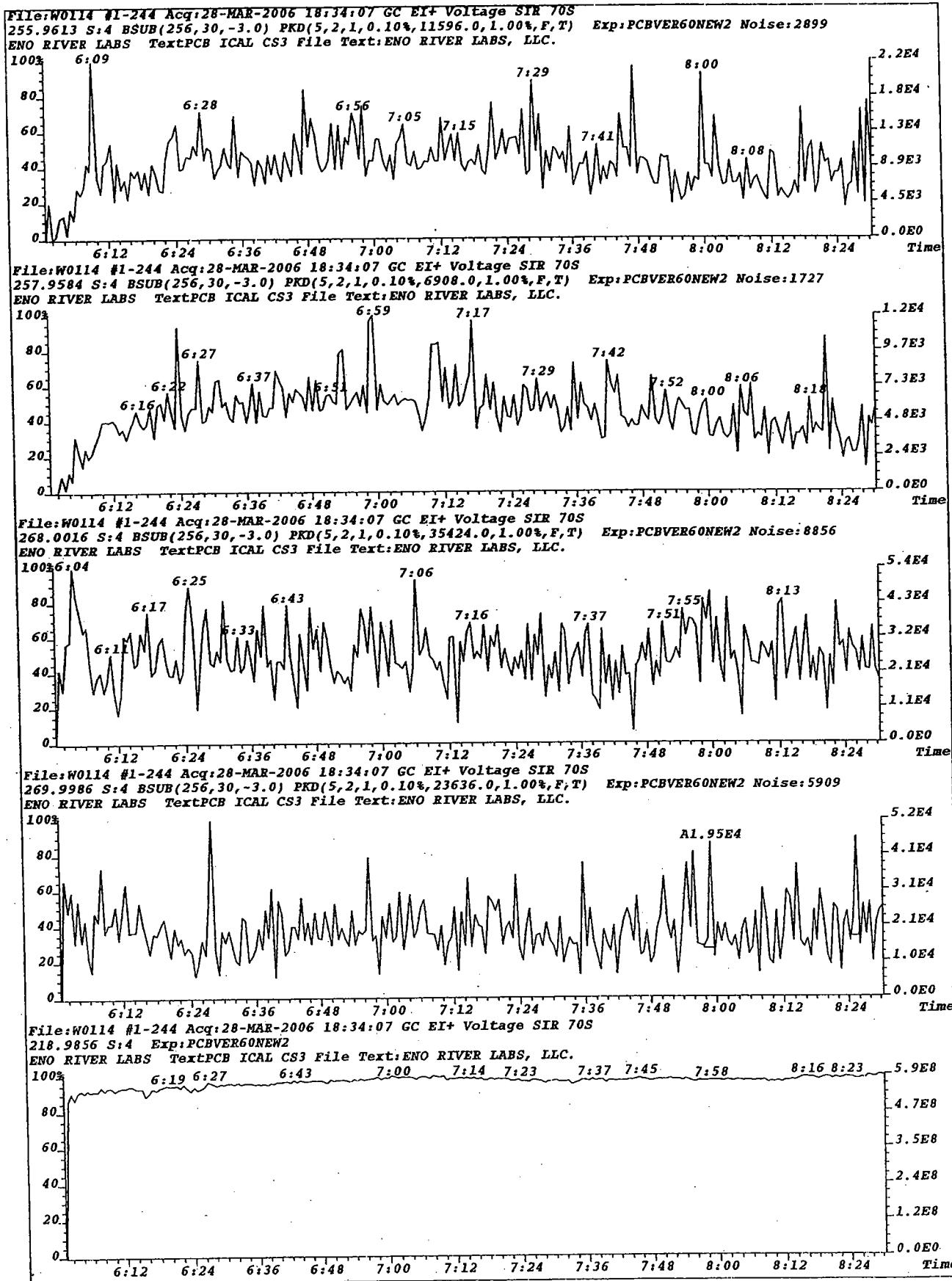
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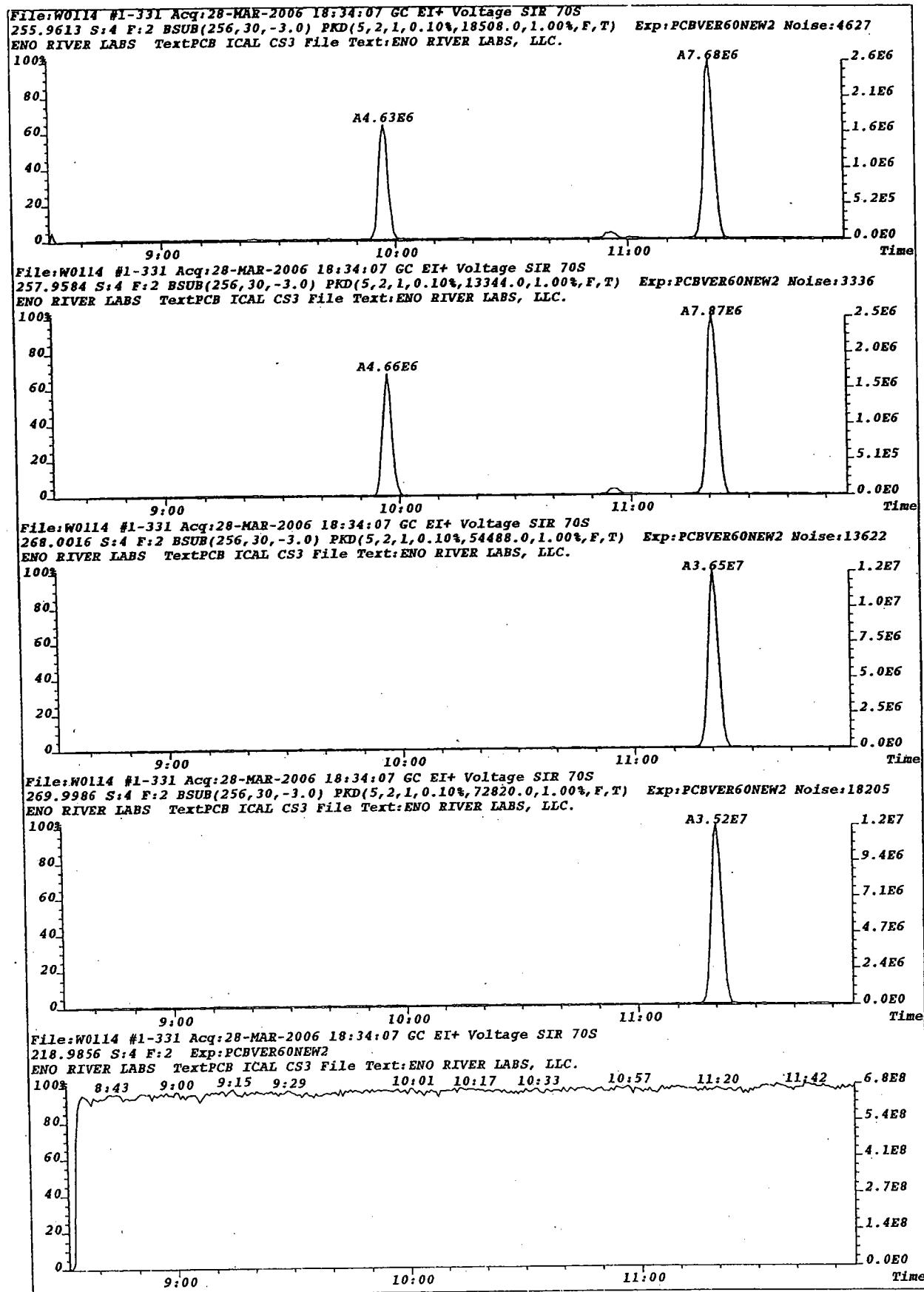
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194	7.37	6.37	8.37
222	8.57	7.52	10.28
234	10.17	9.17	11.17
256	9.57	9.14	13.46
268	11.20	10.20	12.20
290	12.16	11.04	17.36
302	12.15	11.15	18.15
324	15.14	12.42	21.01
336	15.12	14.12	21.12
360	18.31	14.27	24.21
372	18.31	17.09	25.09
394	18.27	17.59	26.04
406	22.43	21.43	23.43
428	26.55	21.28	27.52
440	21.37	20.41	28.41
462	29.54	25.44	30.05
498	32.02	31.51	32.11
510	32.00	31.00	33.00

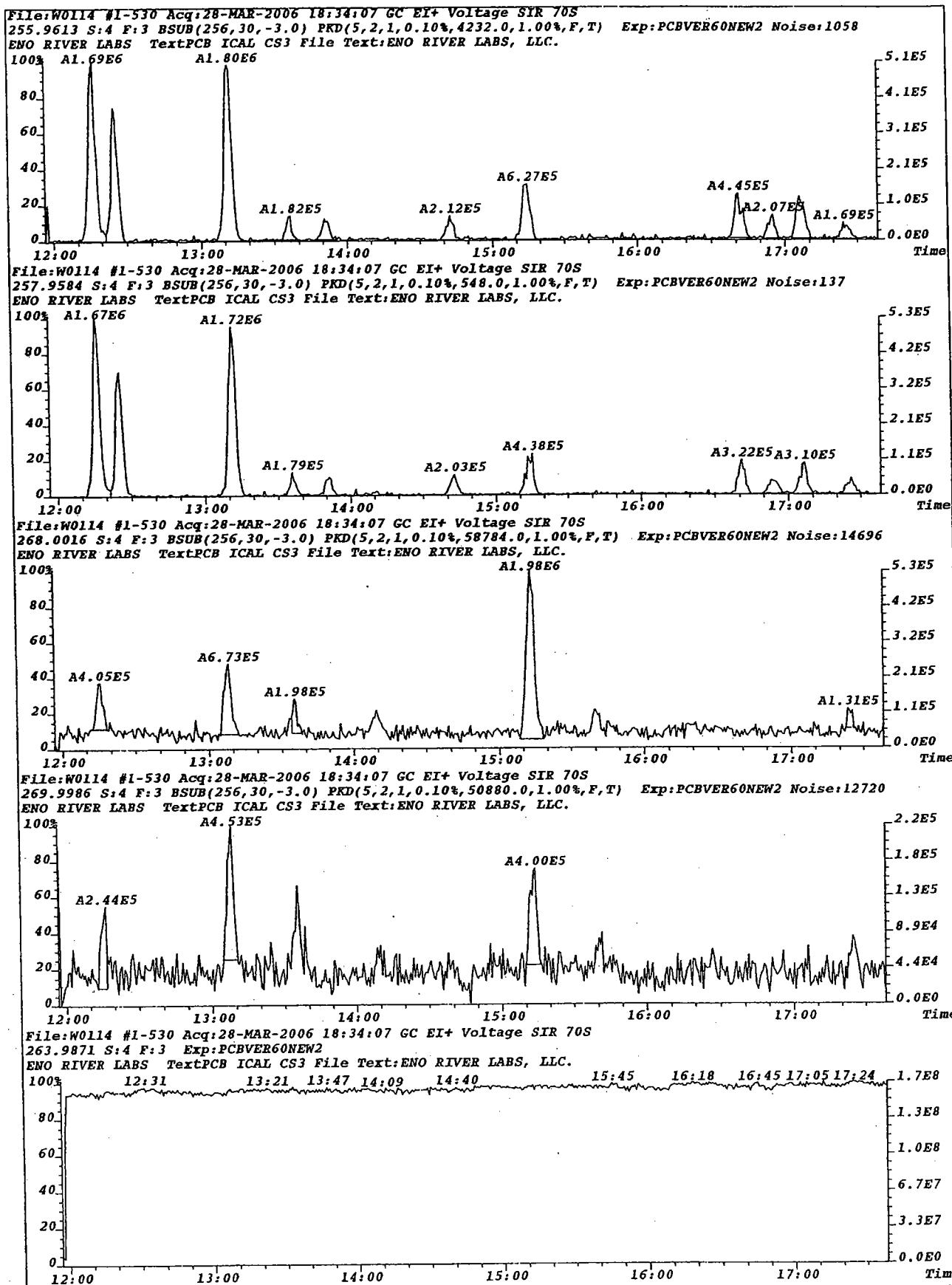


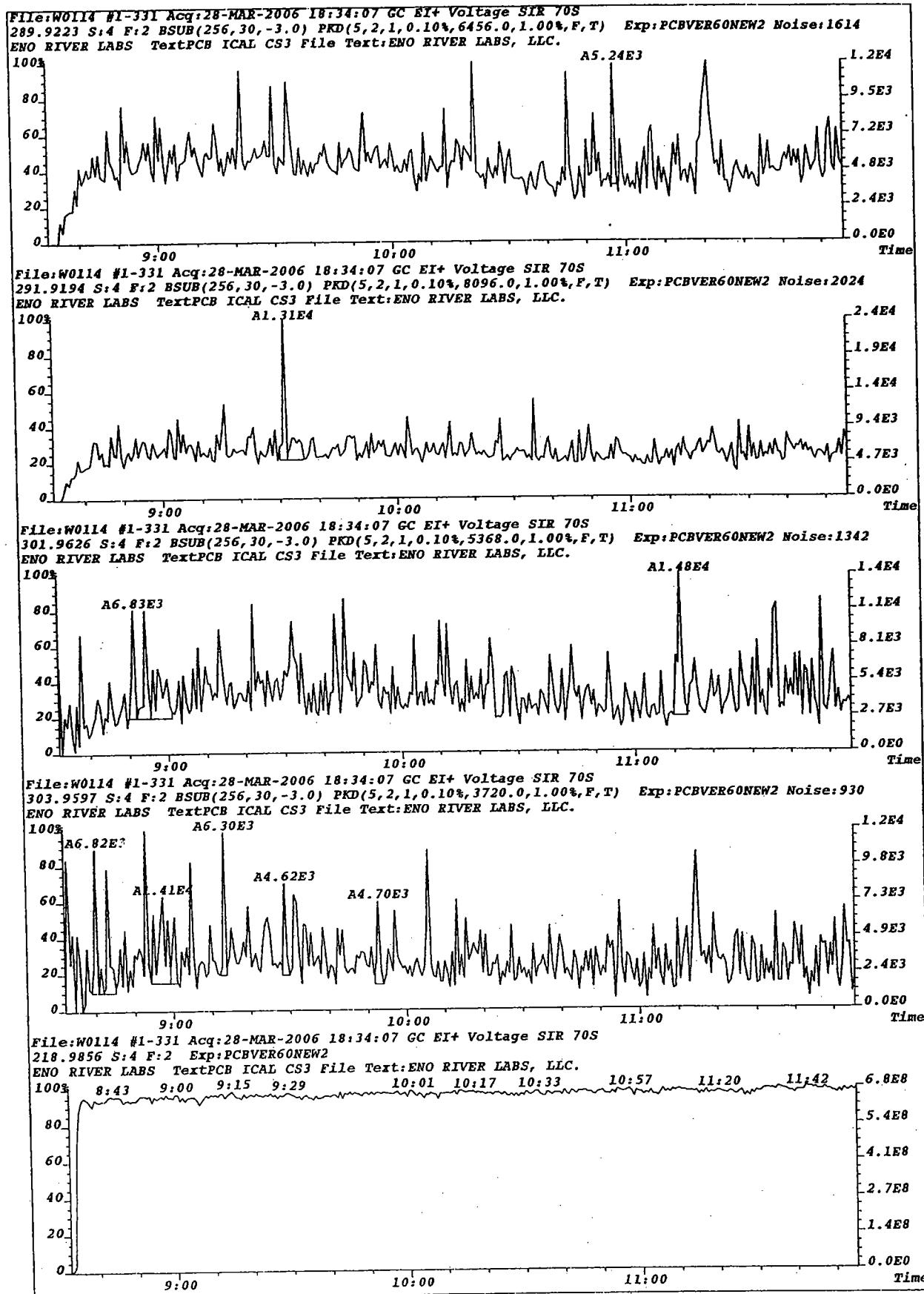


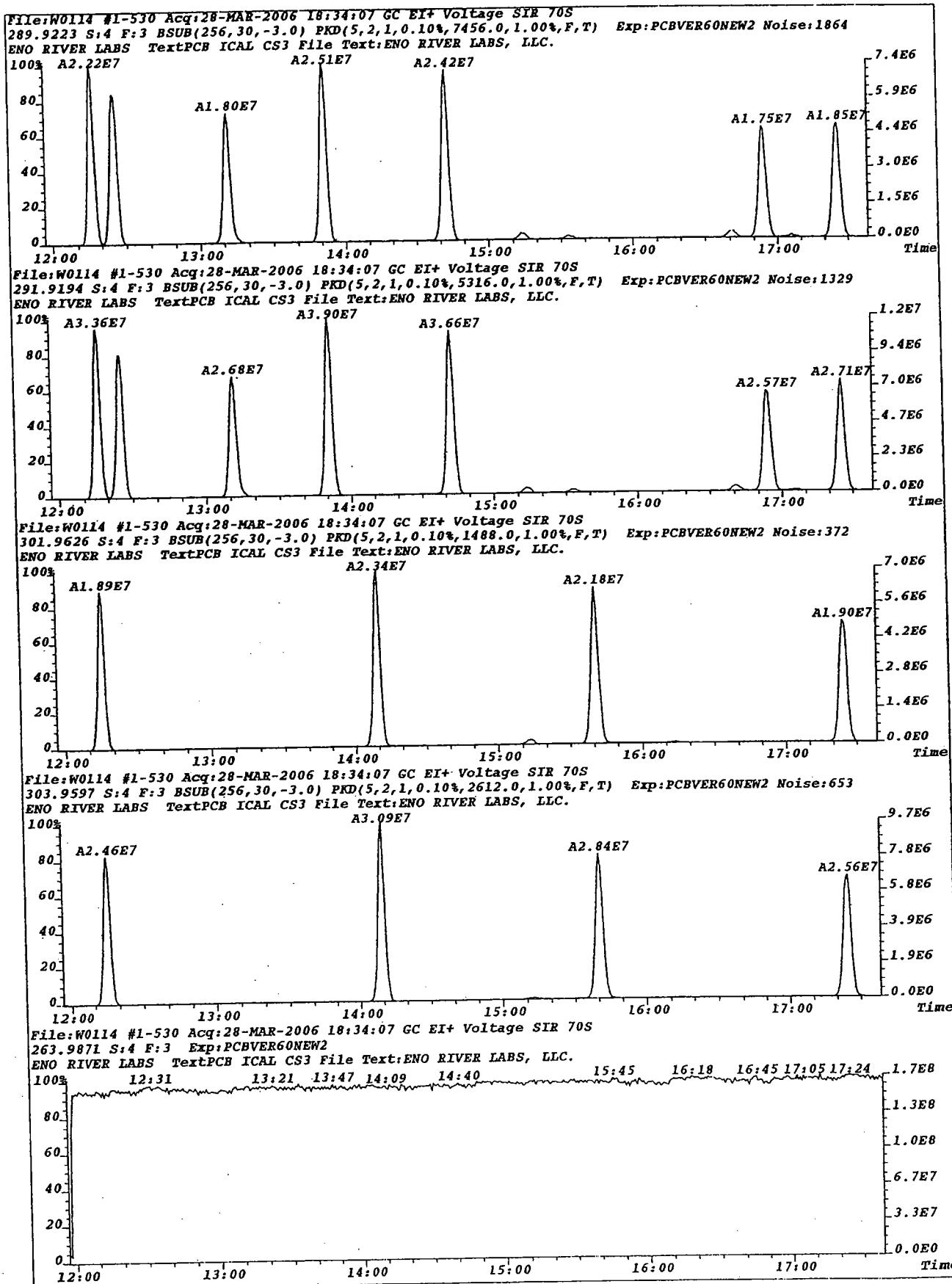


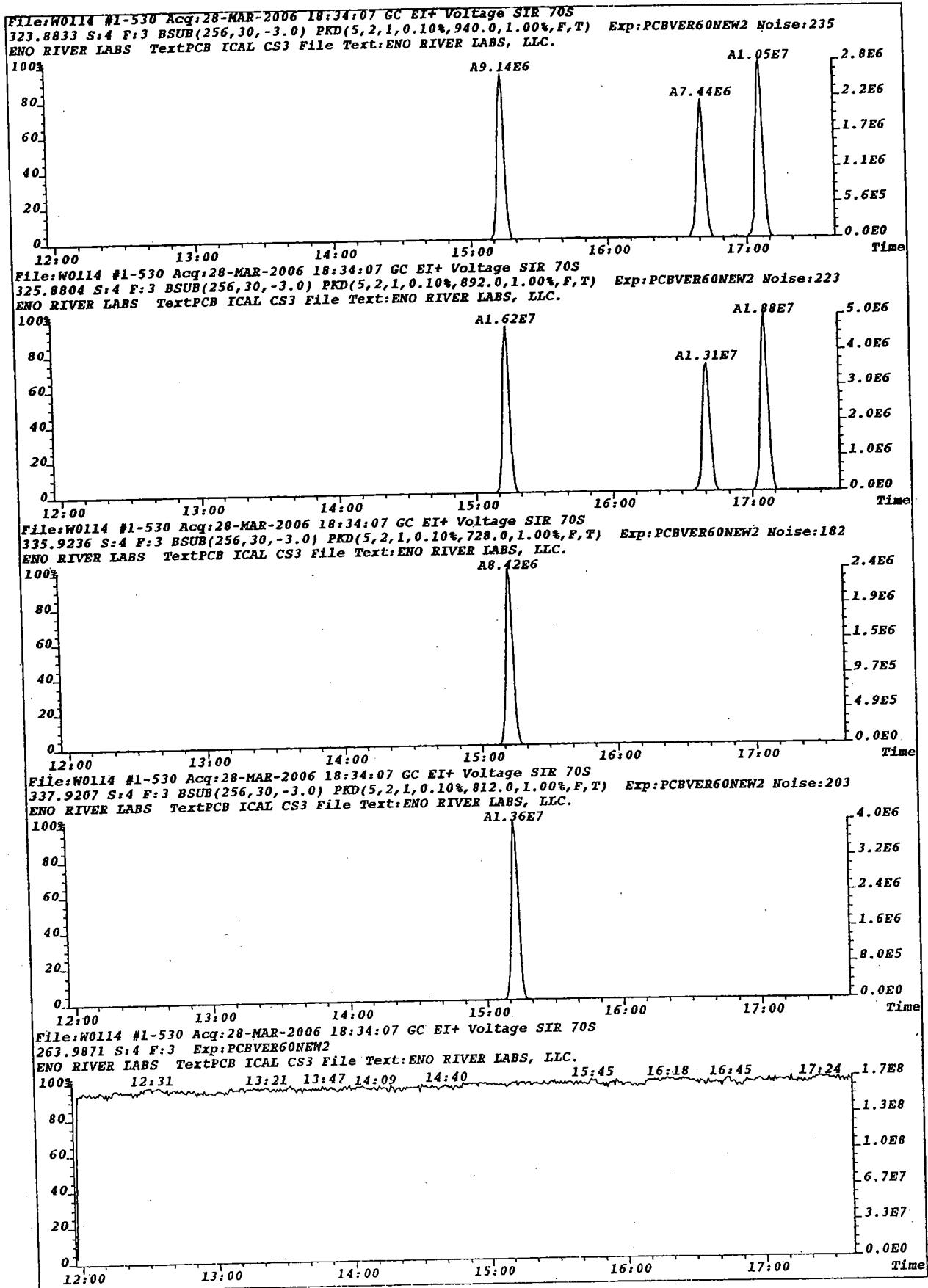


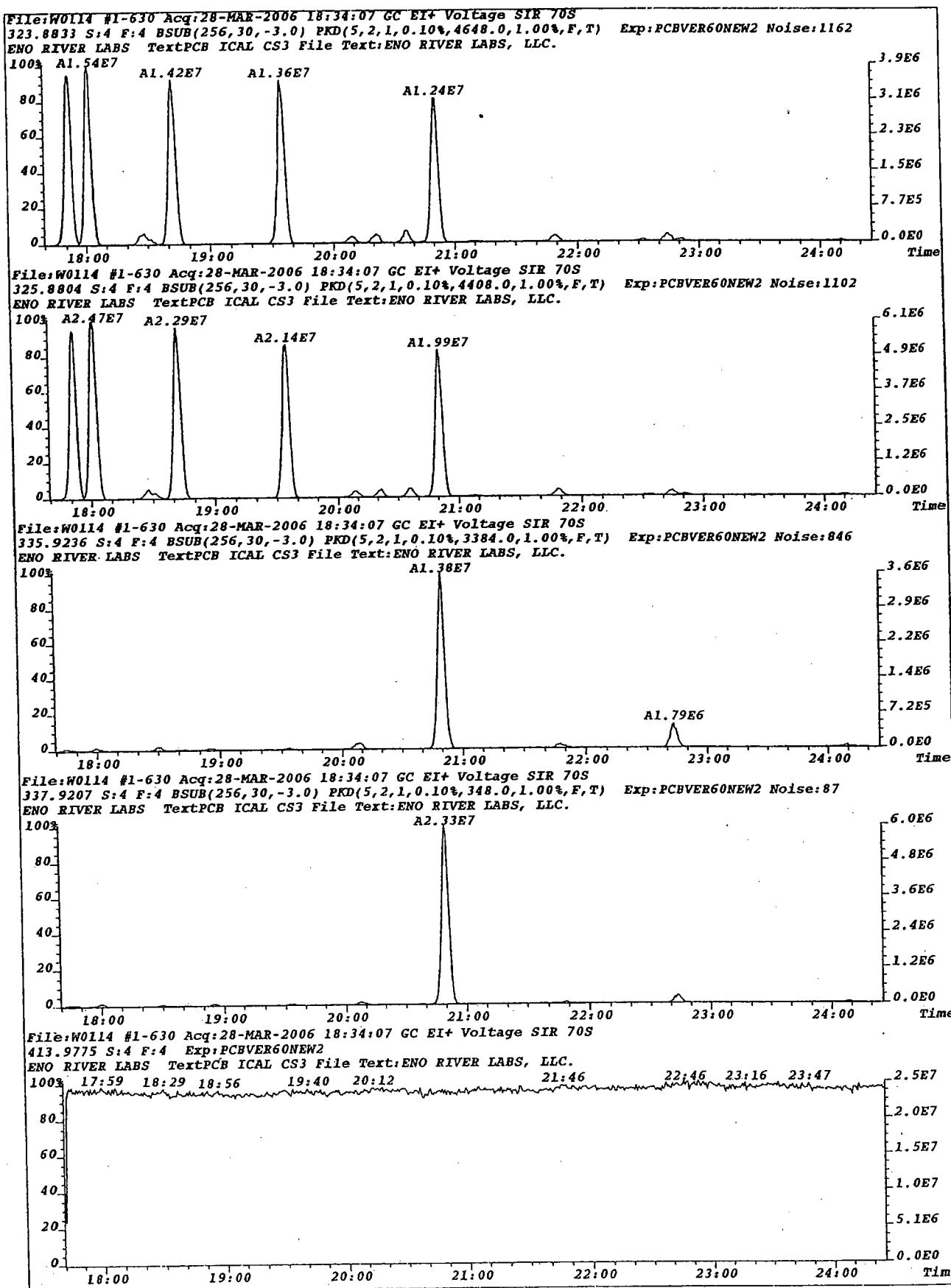


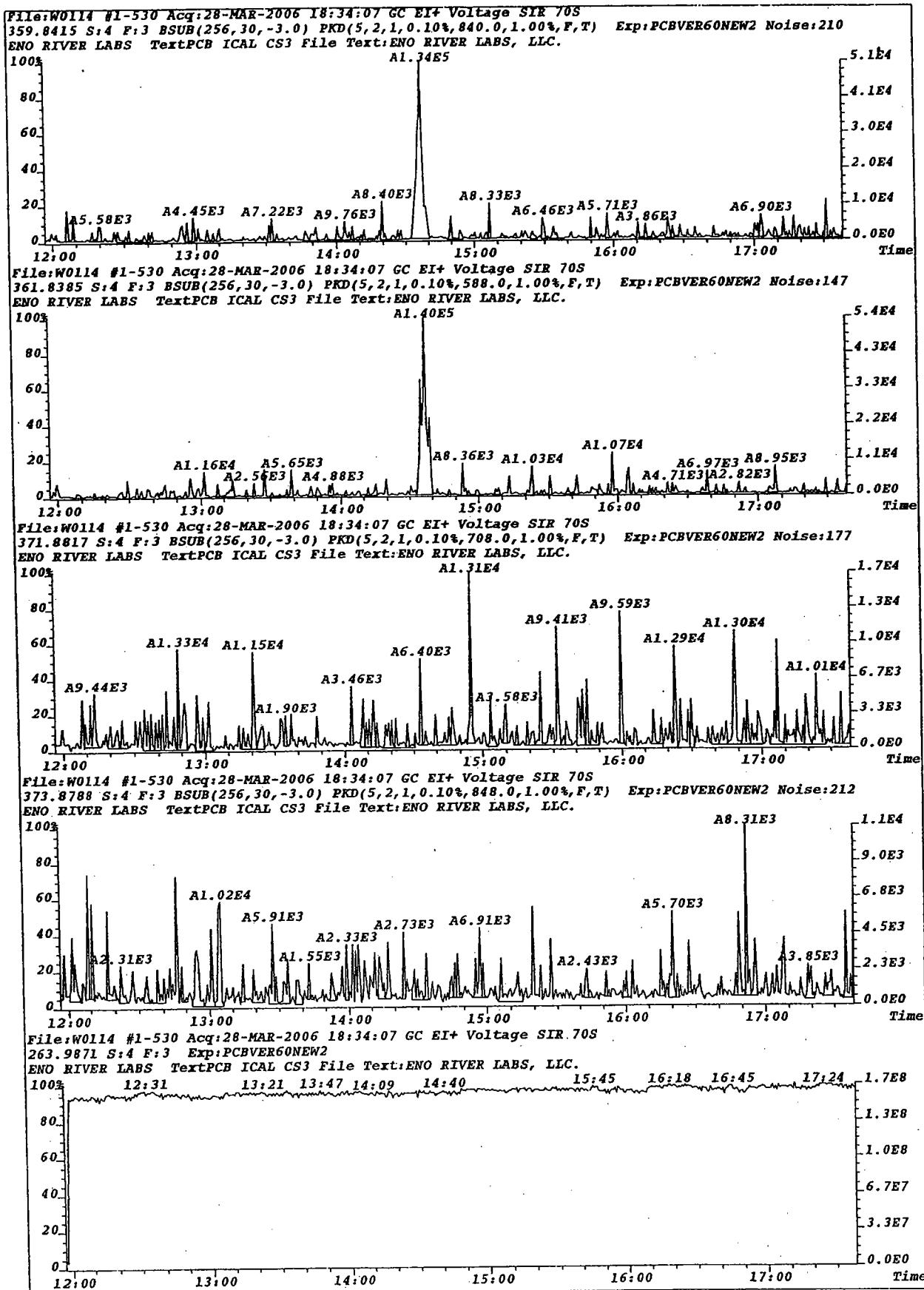


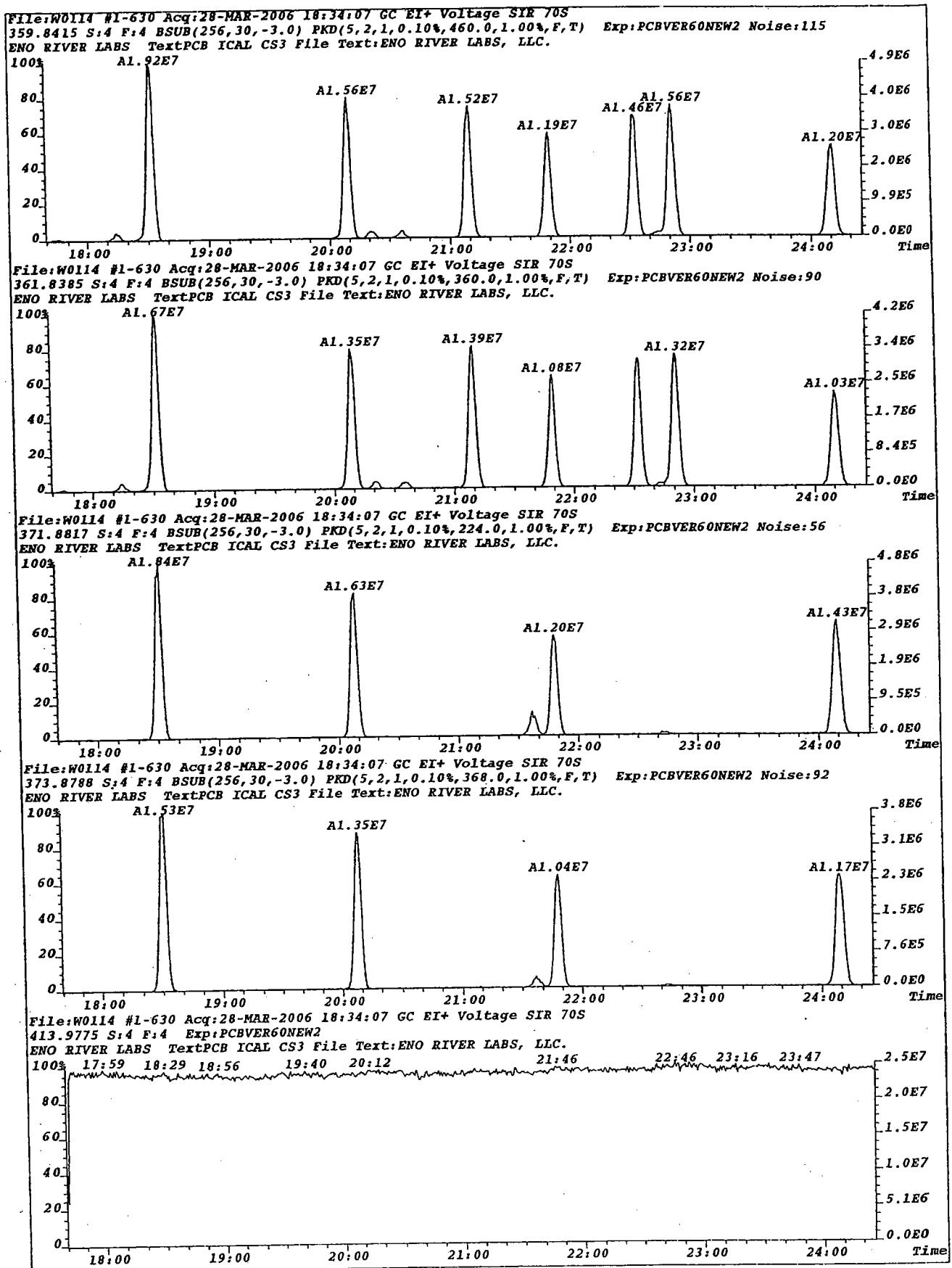


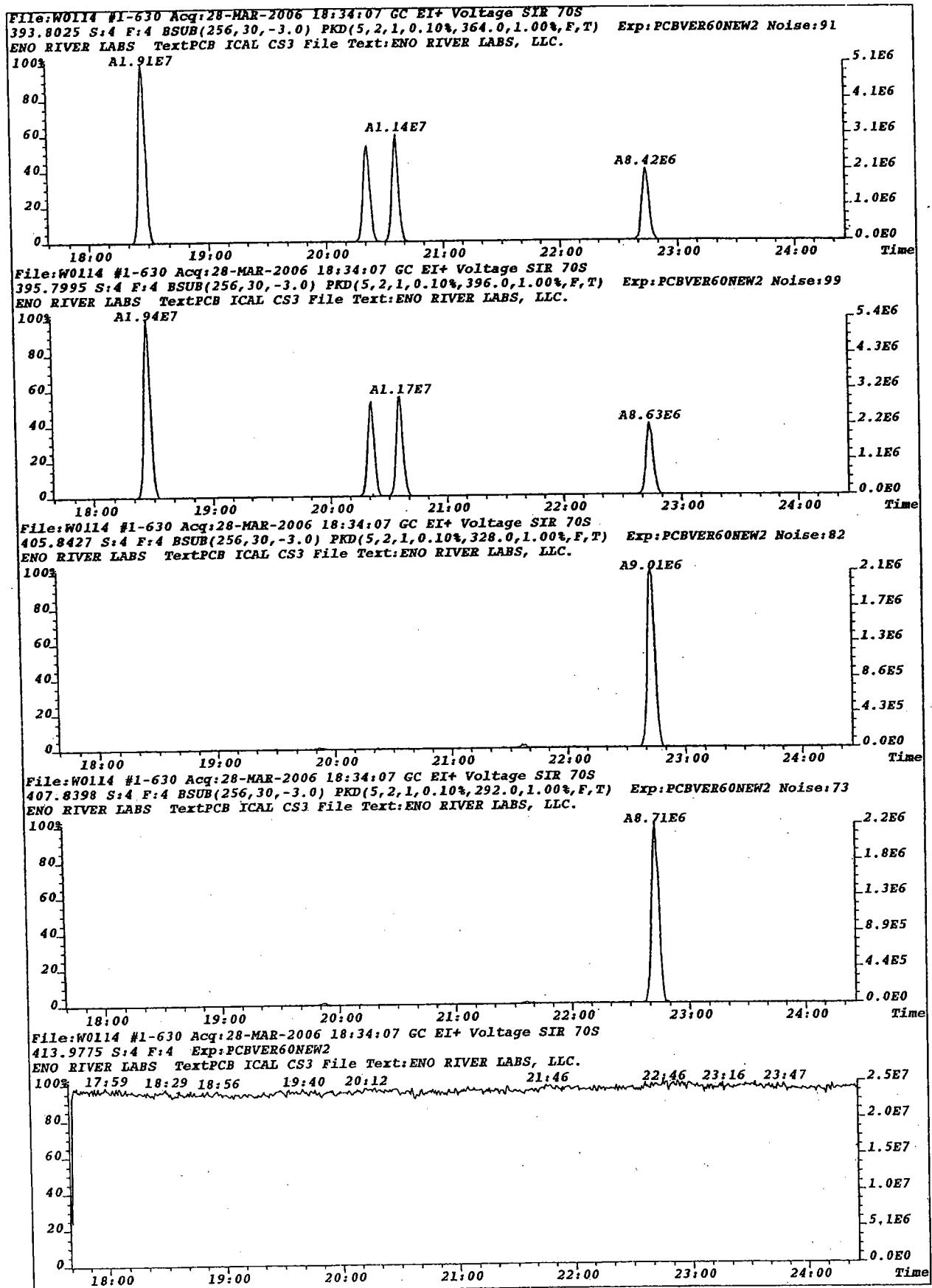


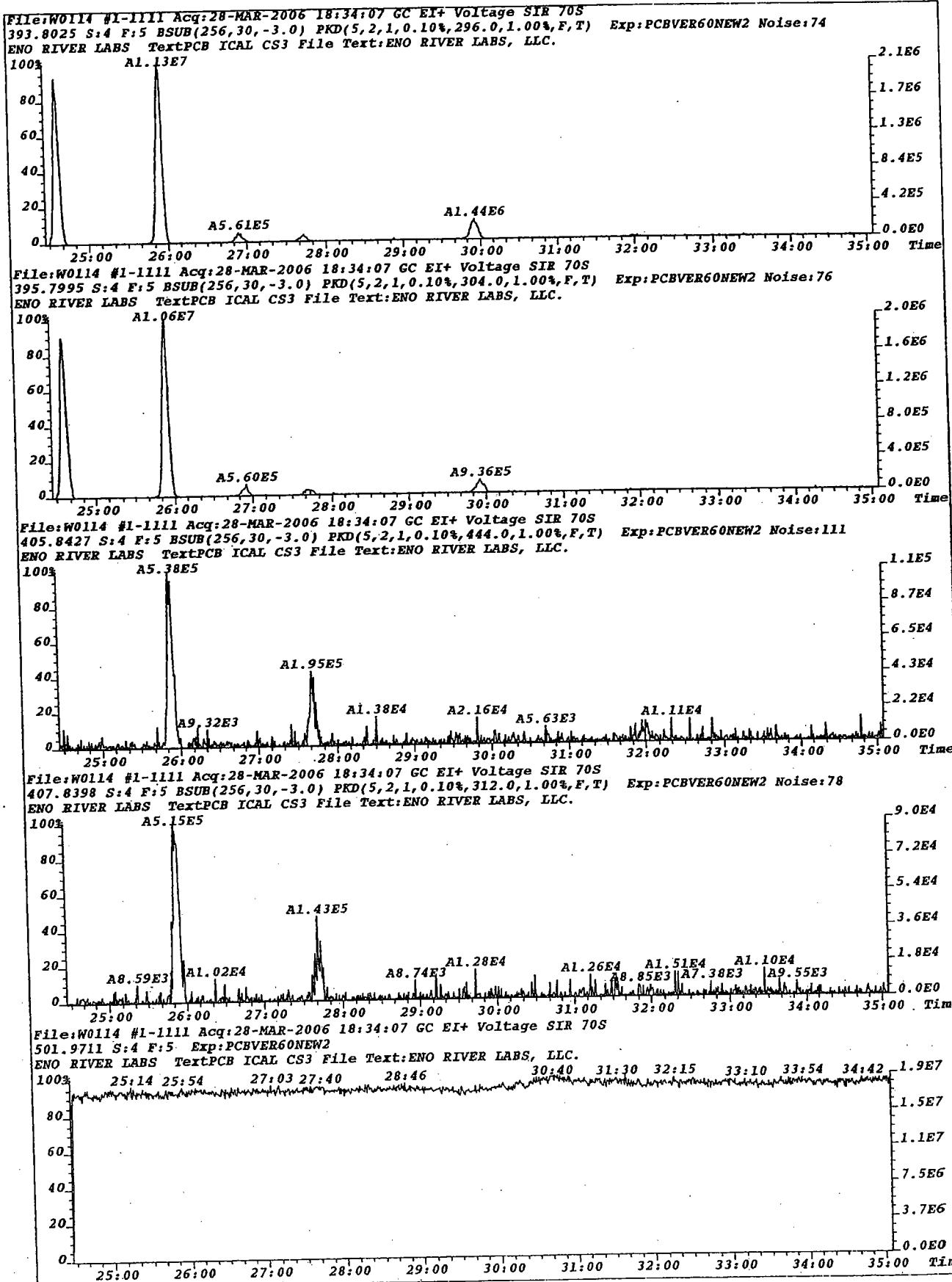


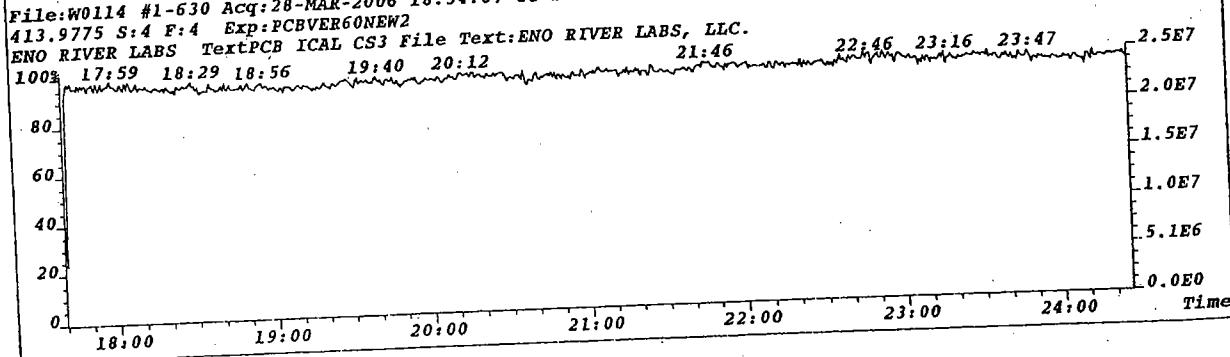
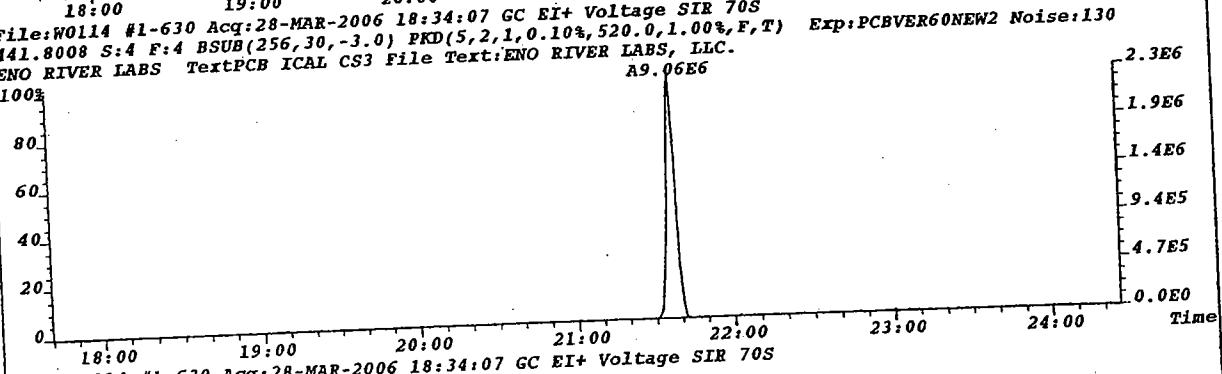
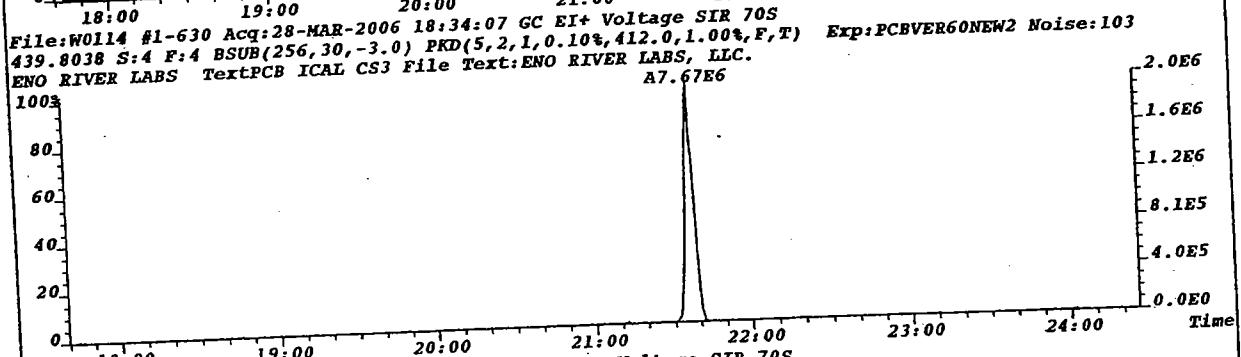
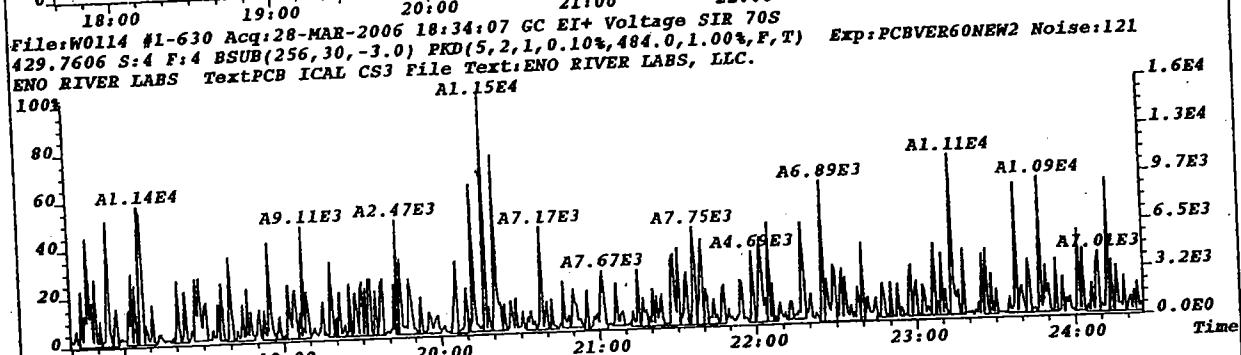
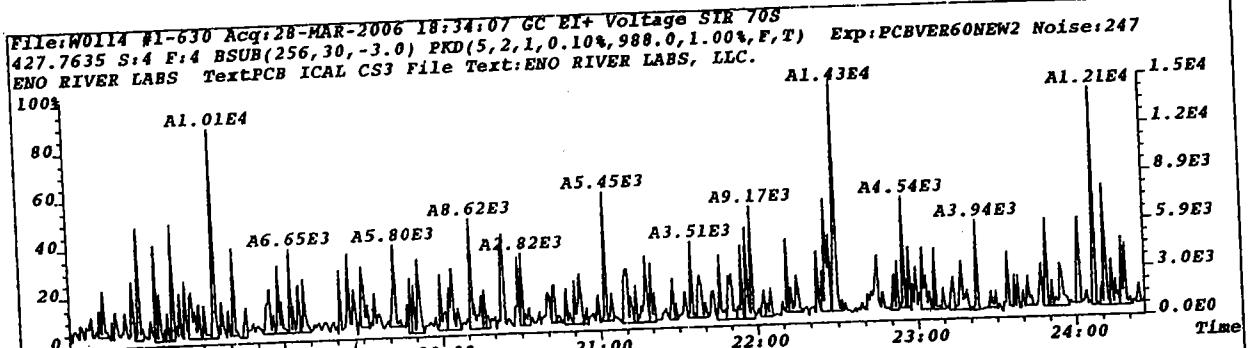


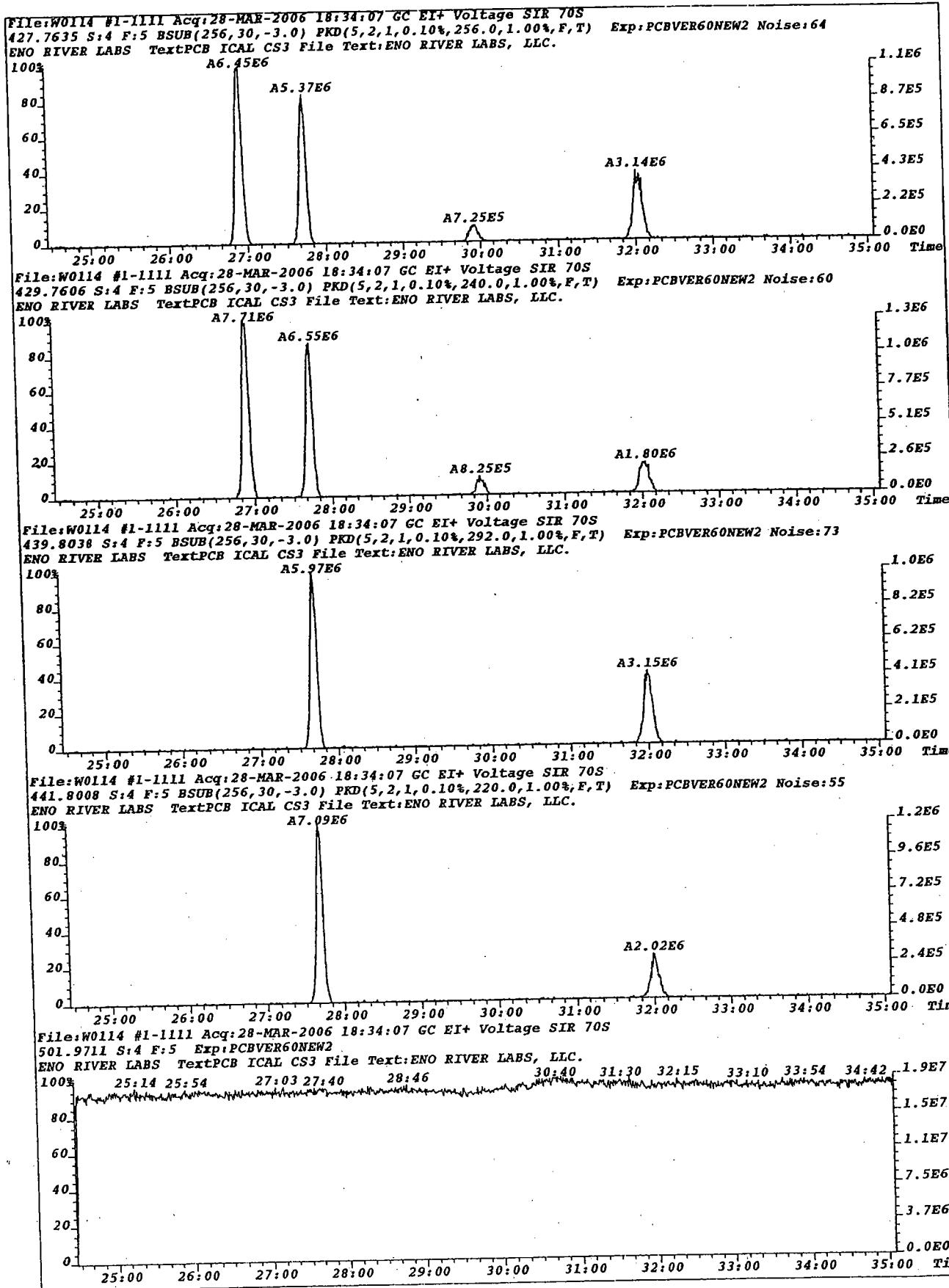


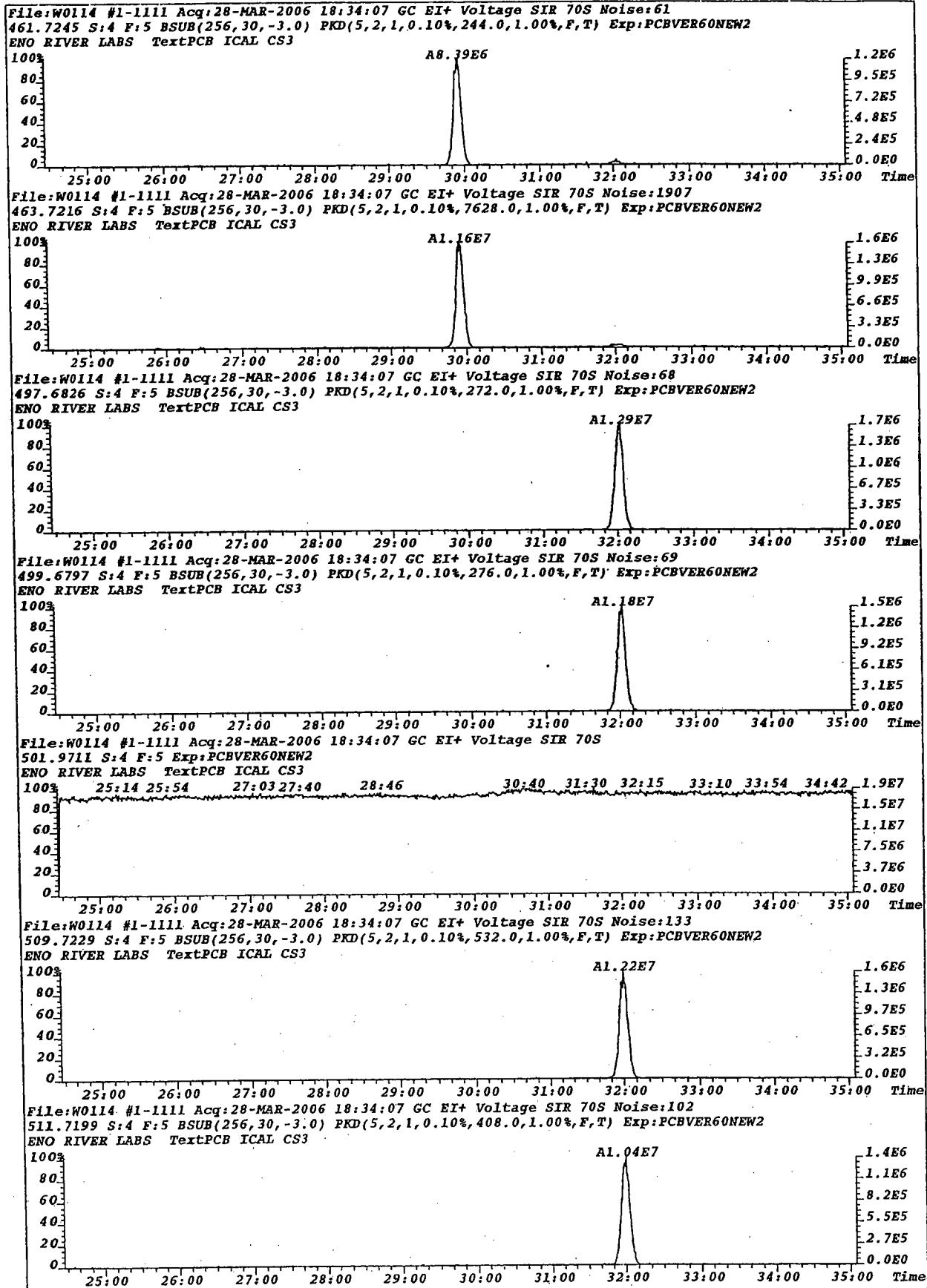




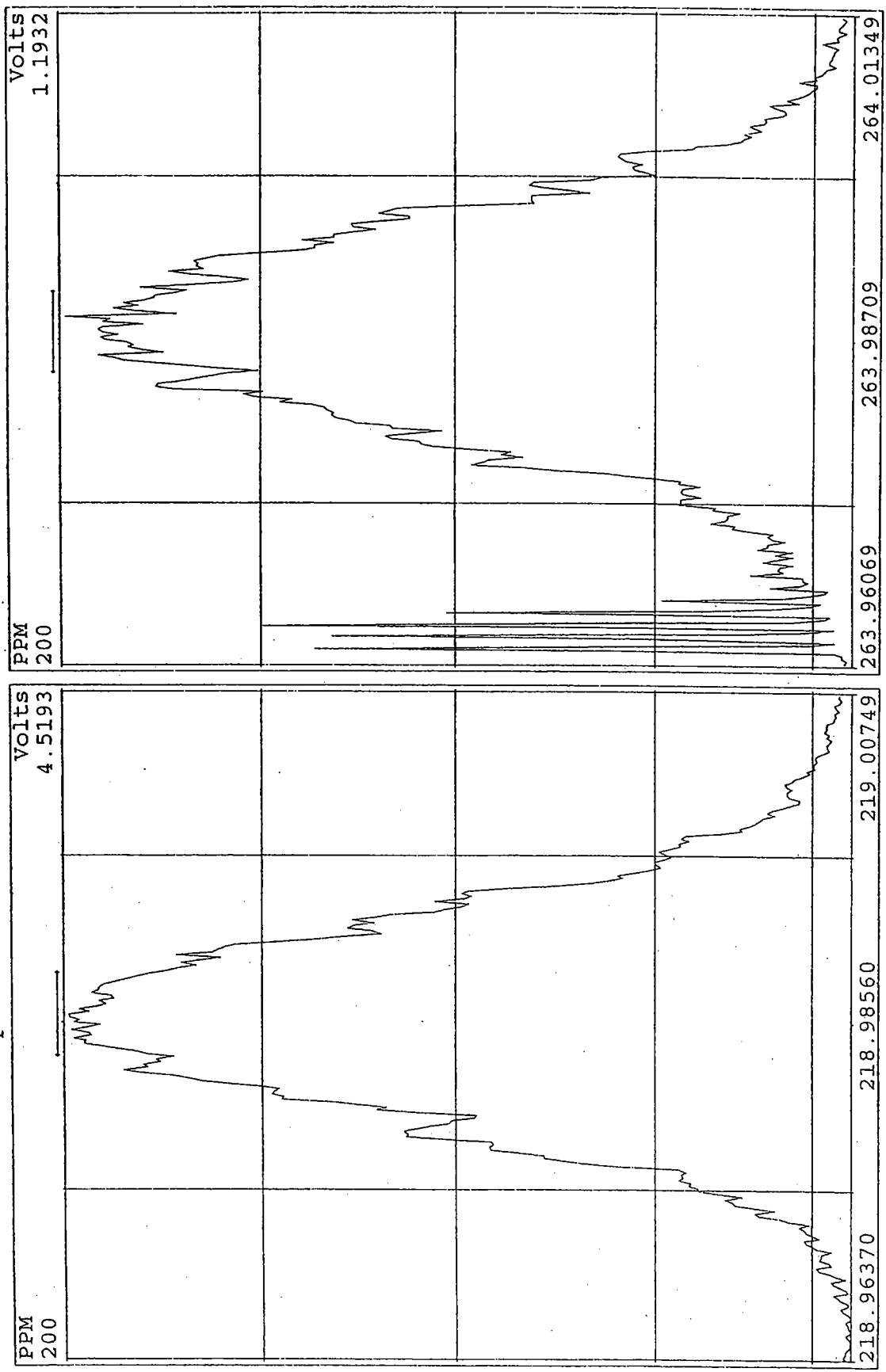


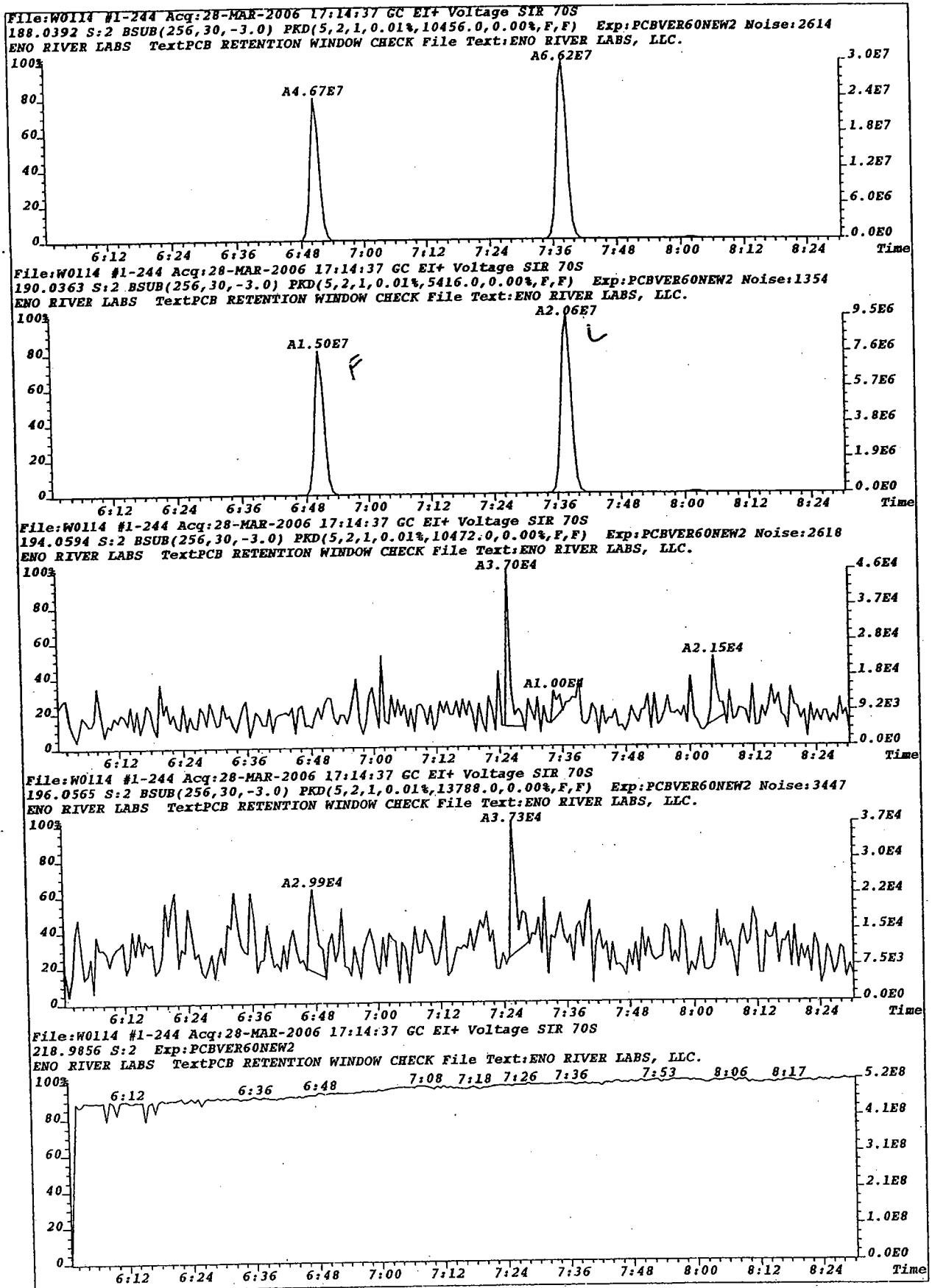


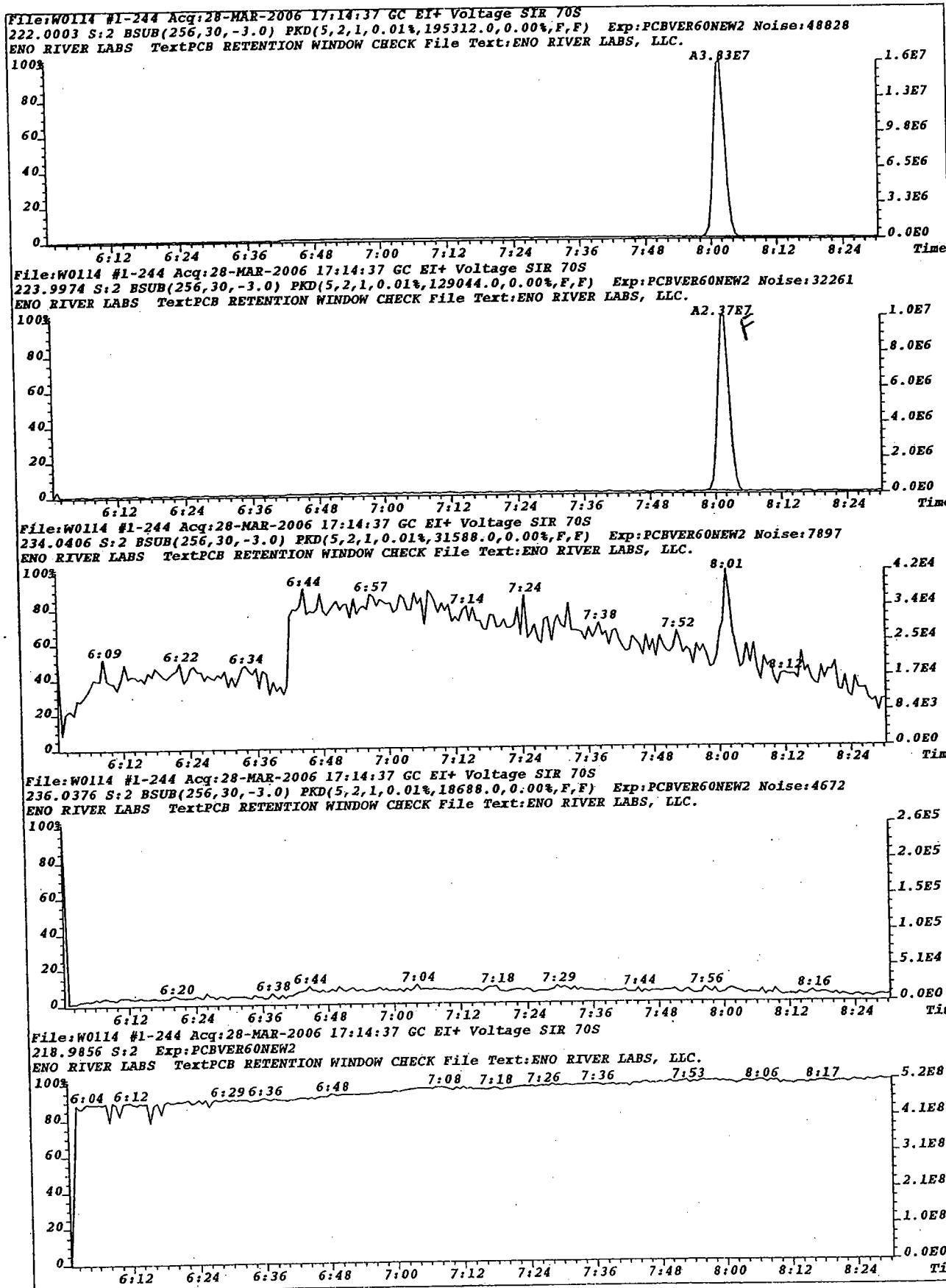


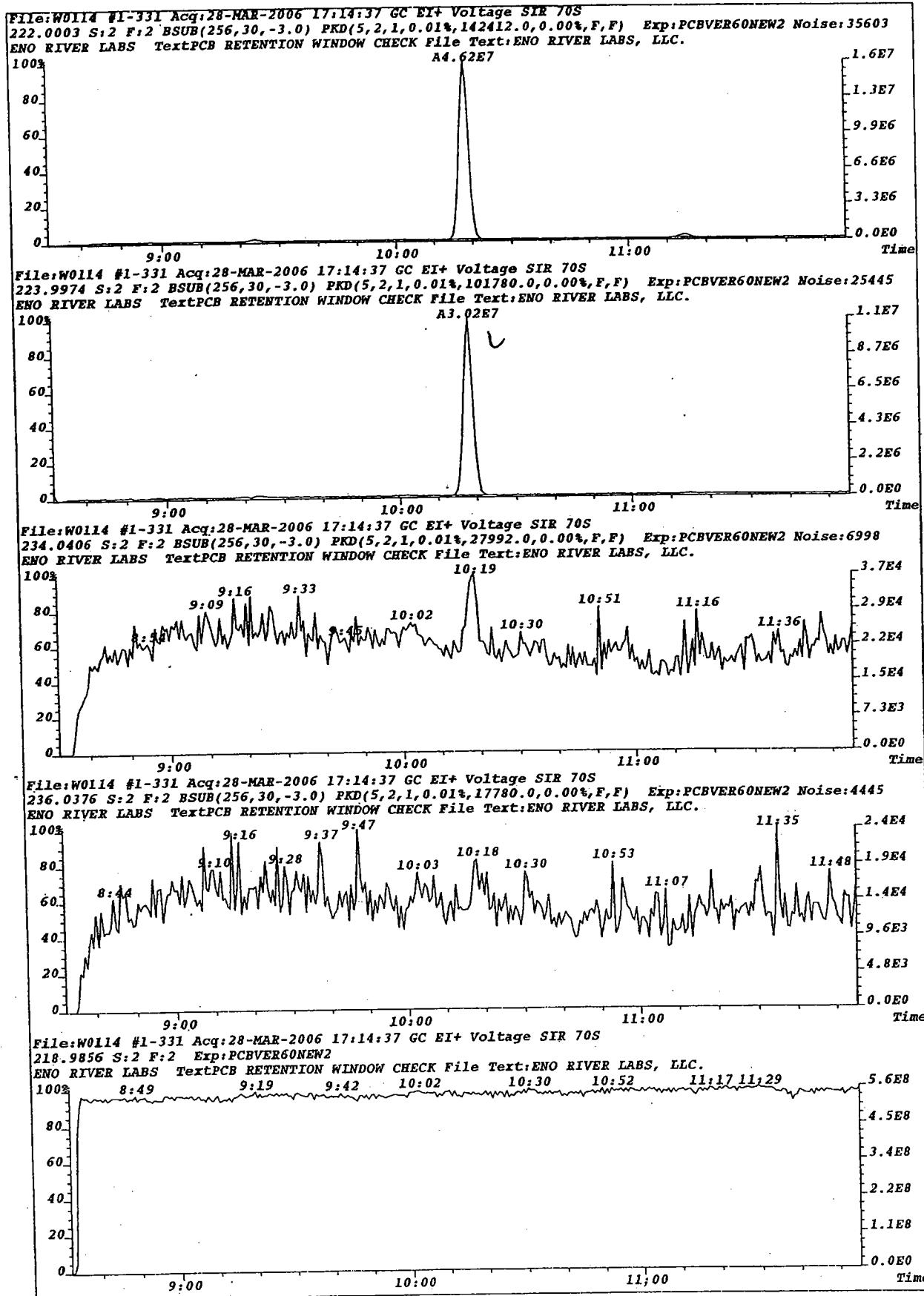


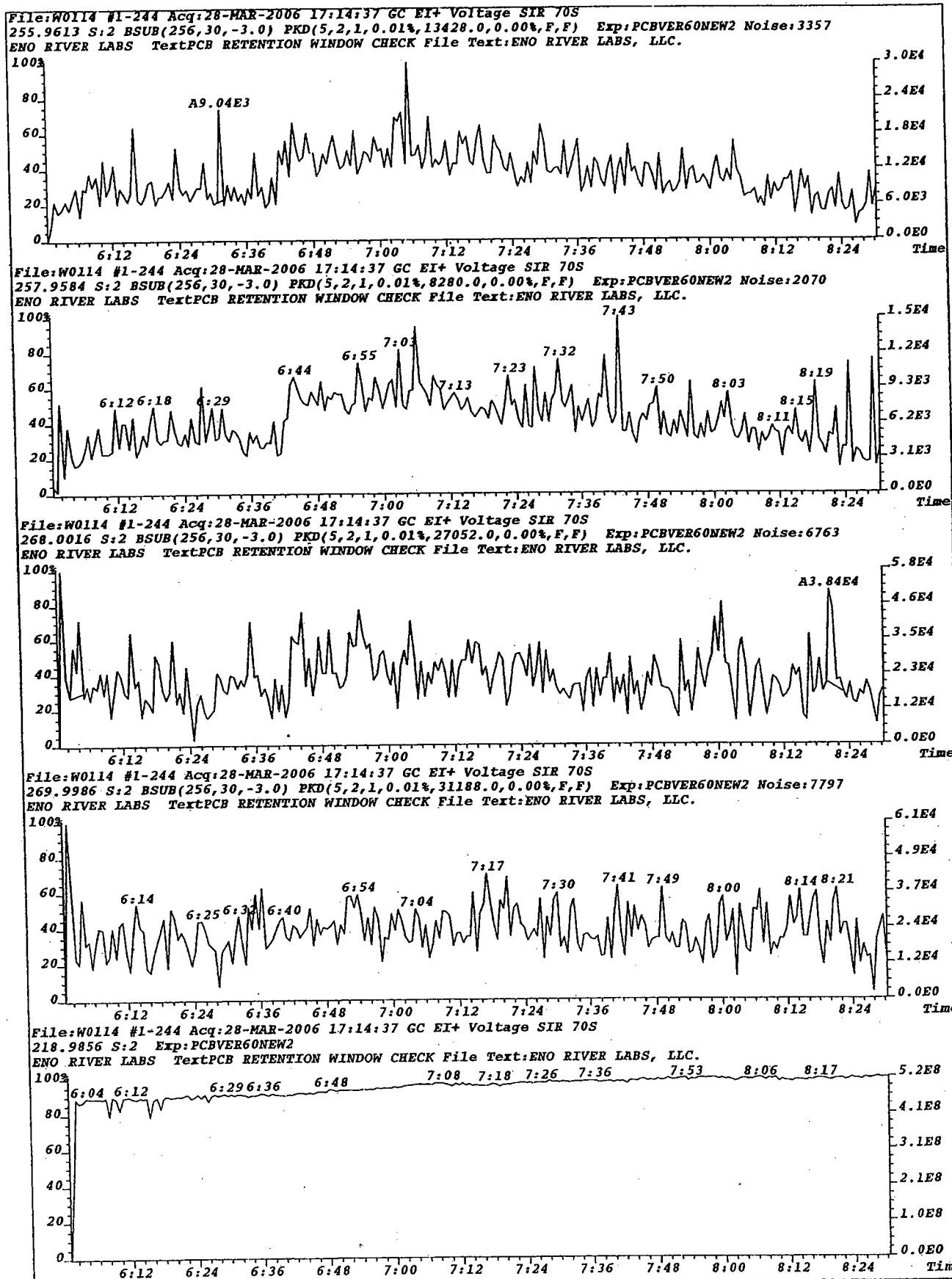
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Experiment: PCBVER60NEW2 Function:2 Reference:HEPTA_PFK

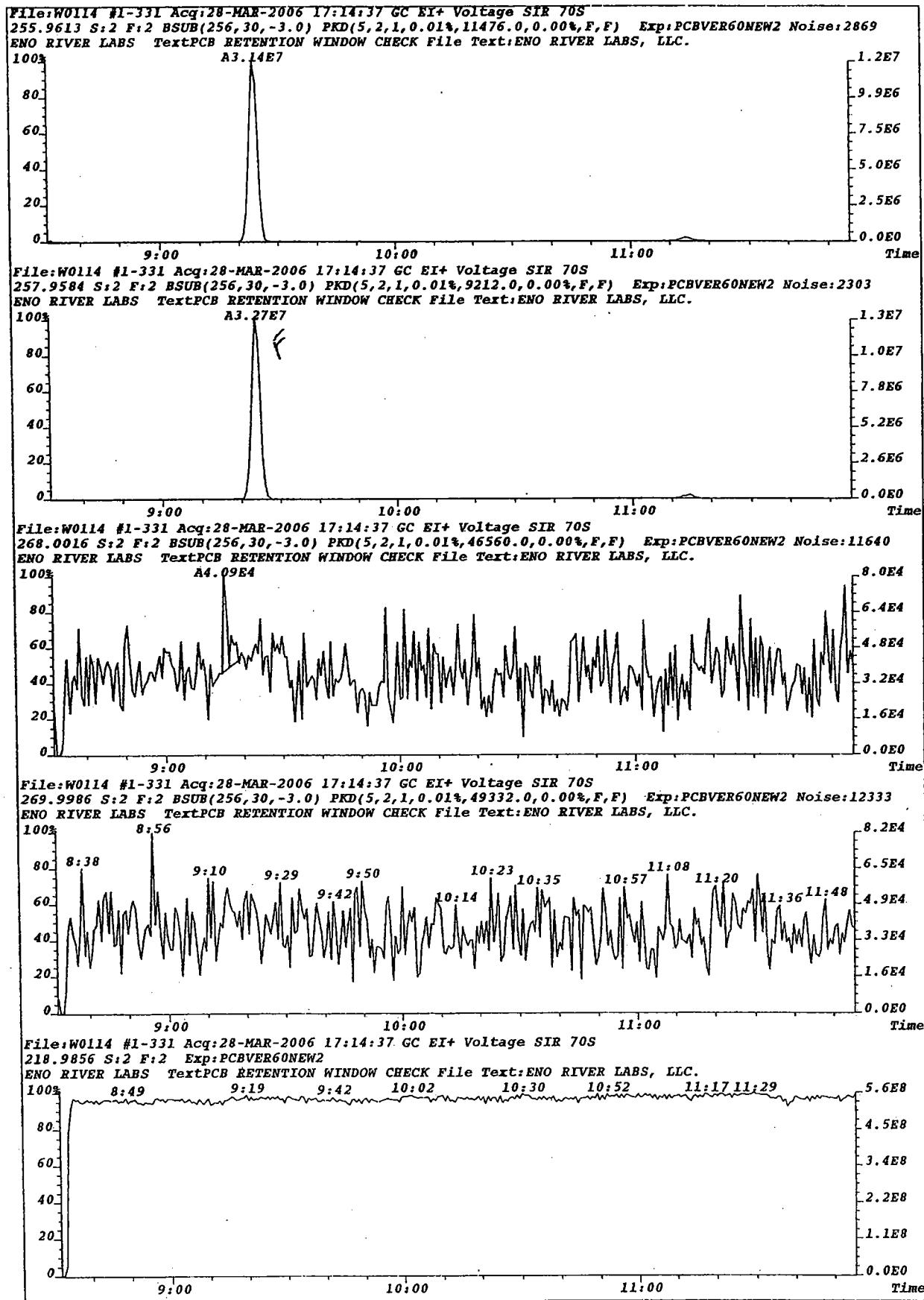


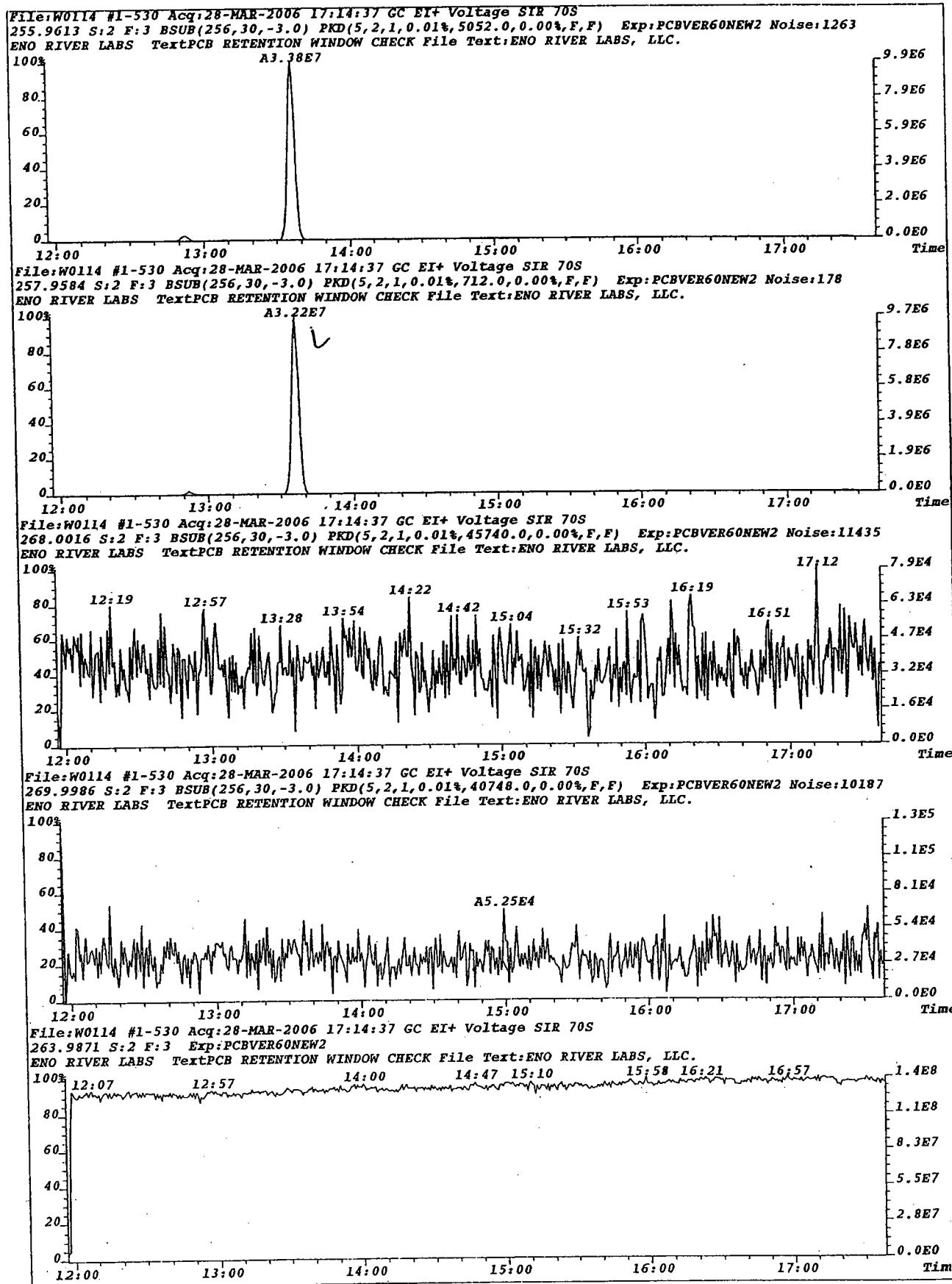


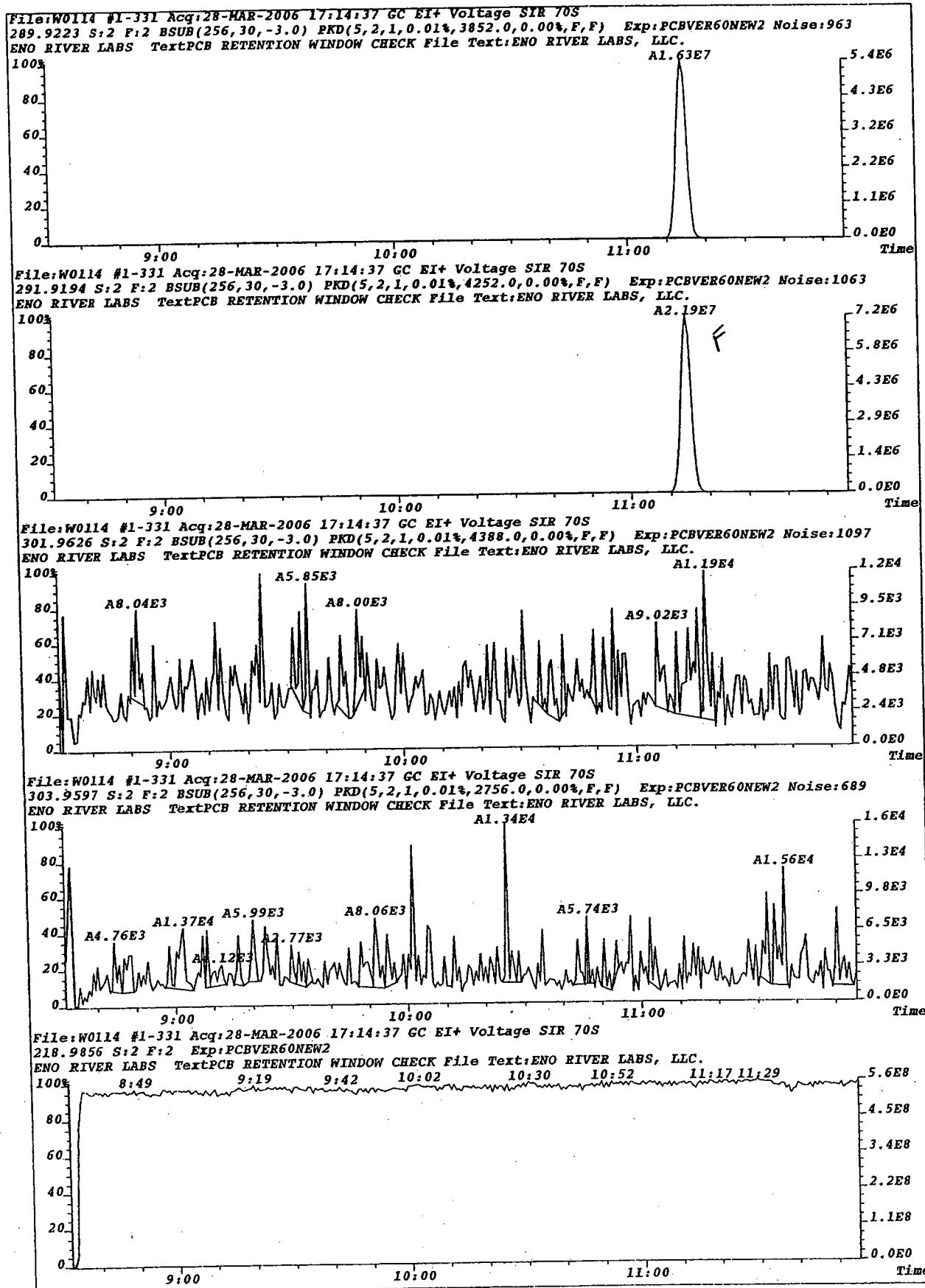




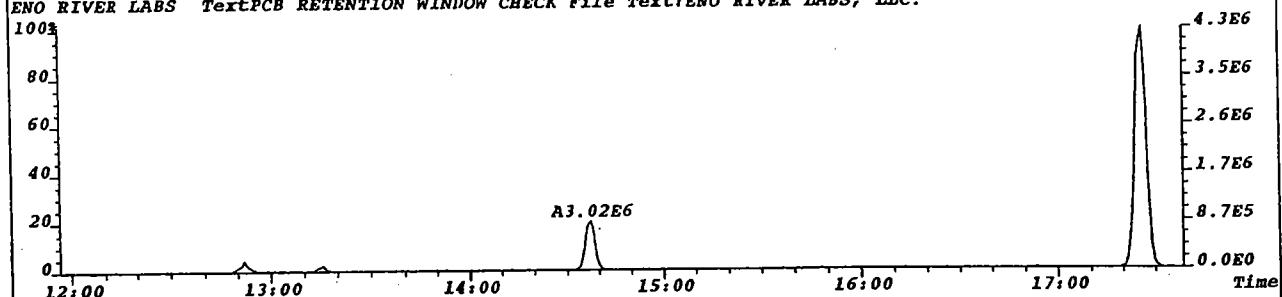




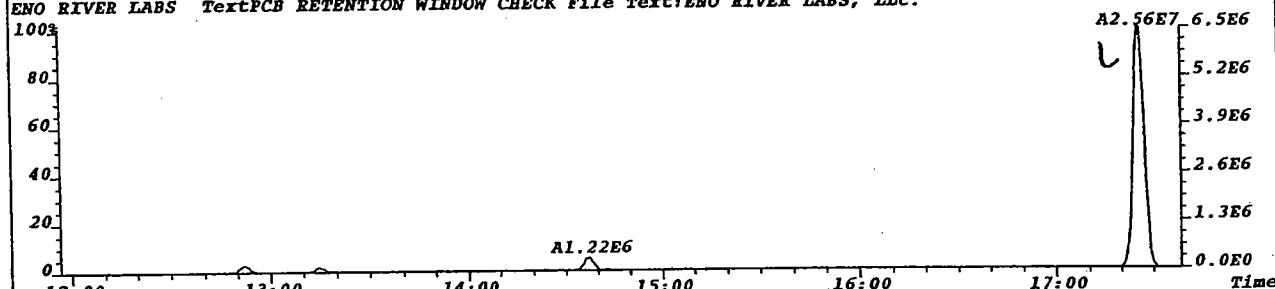




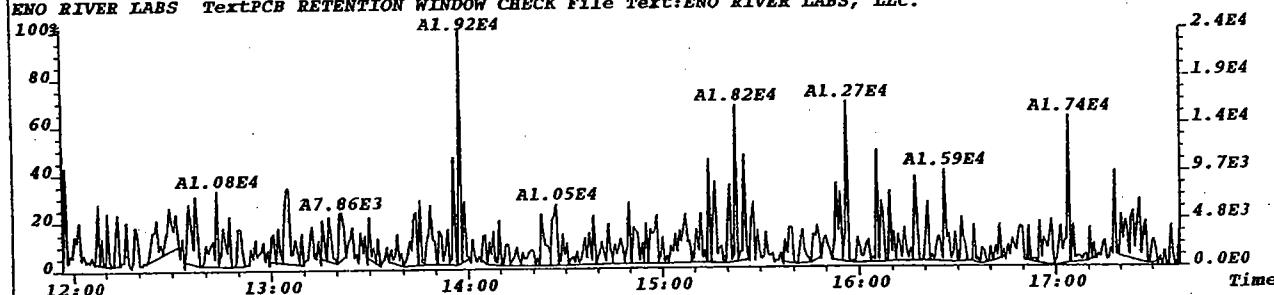
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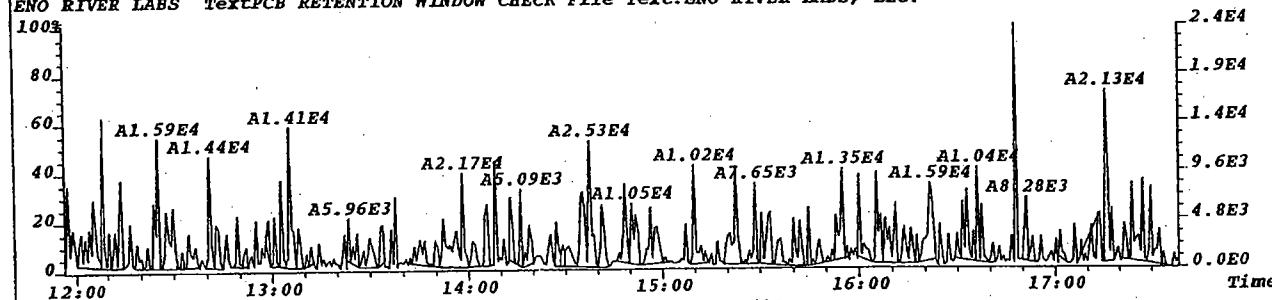
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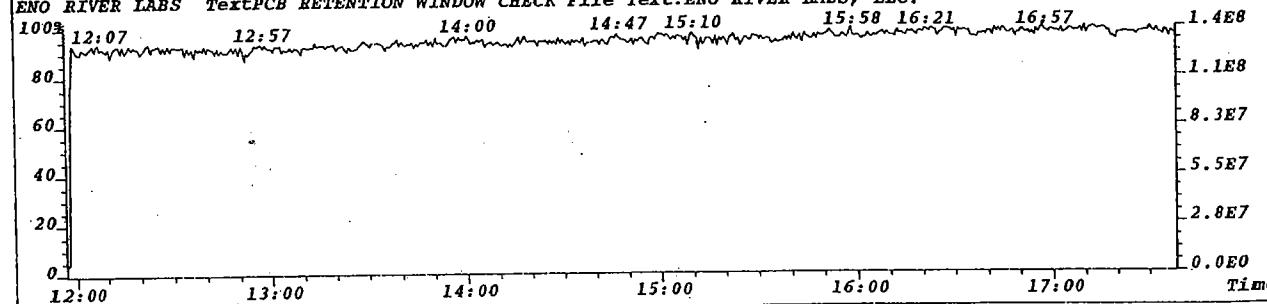
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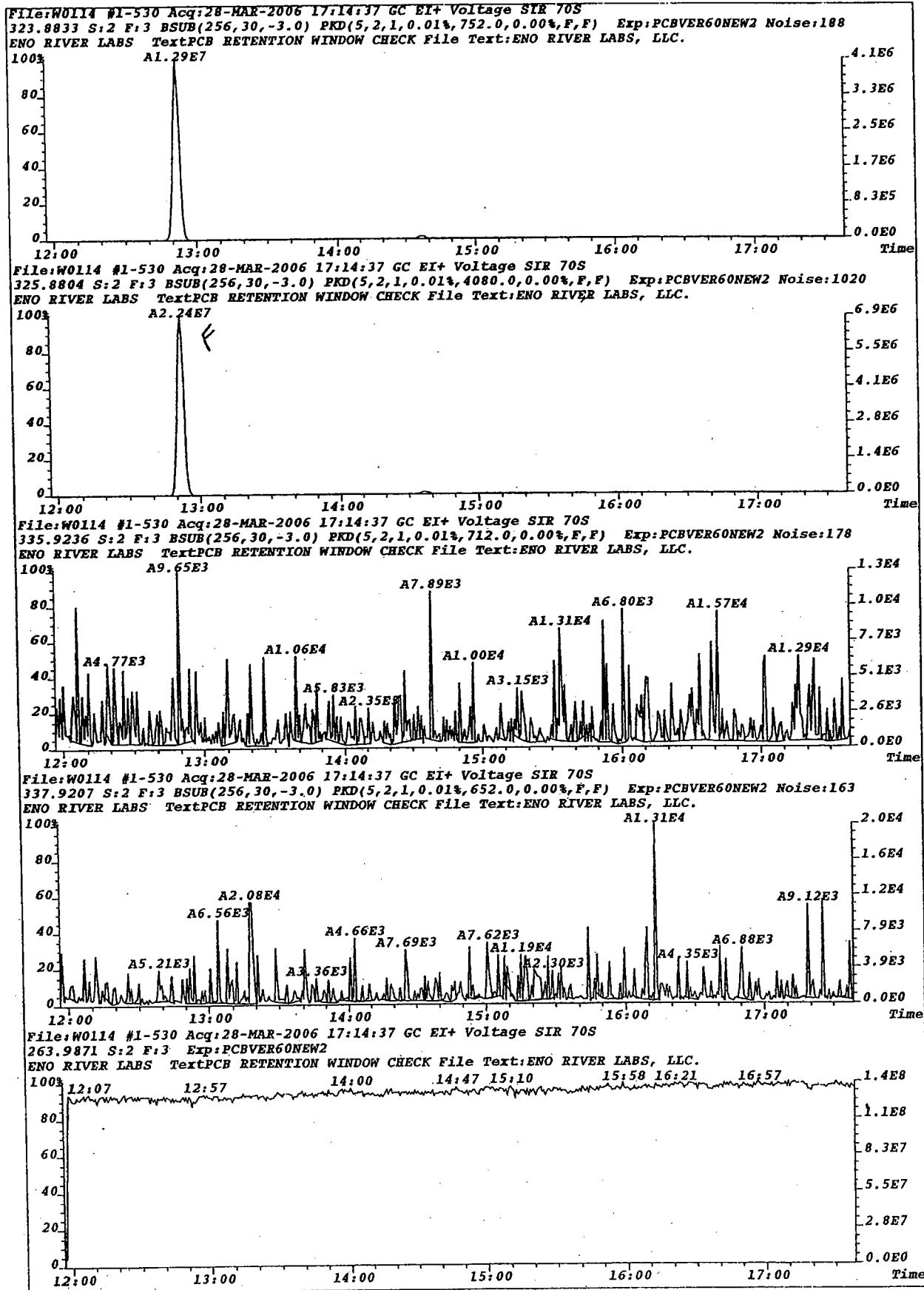


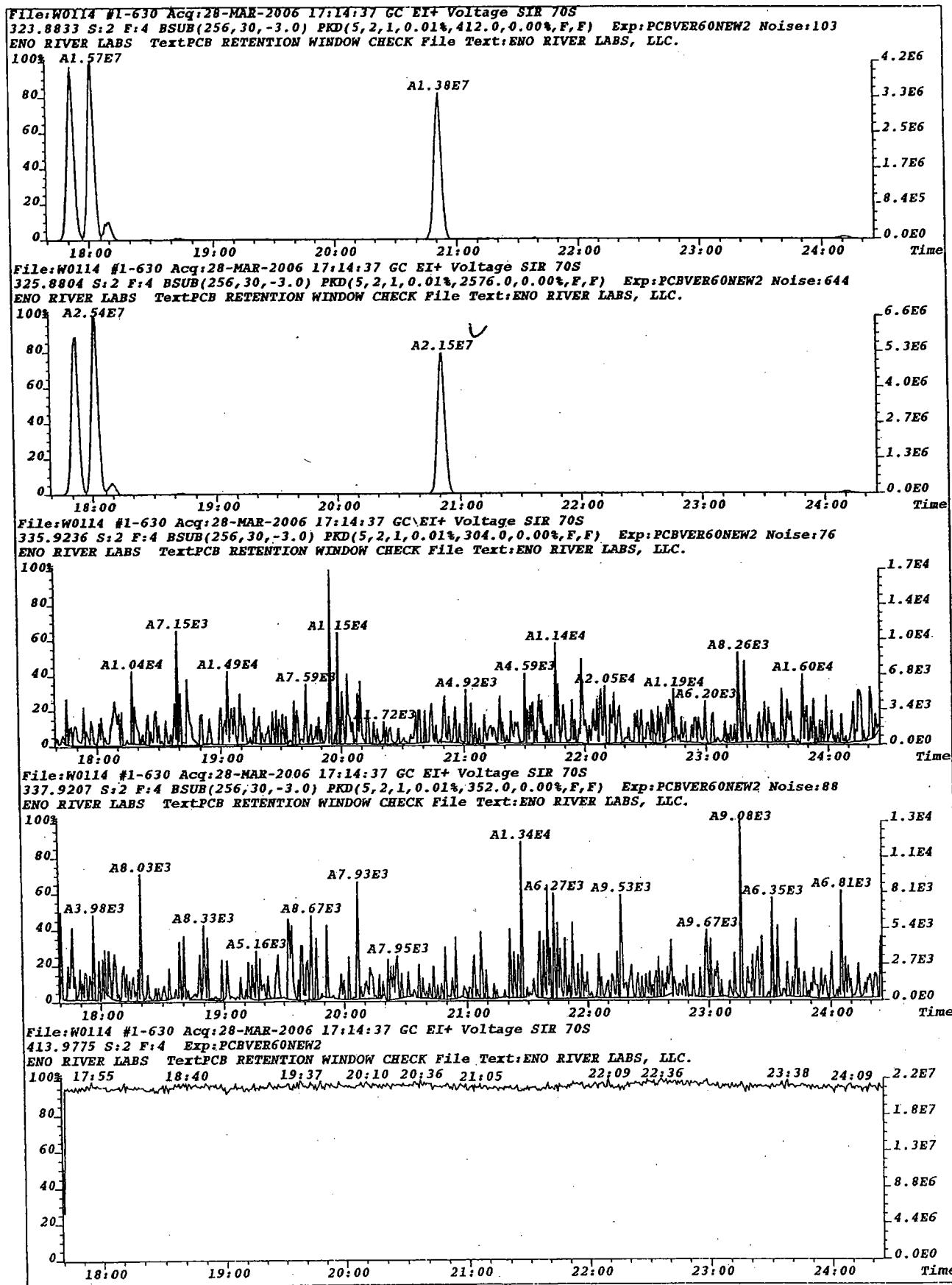
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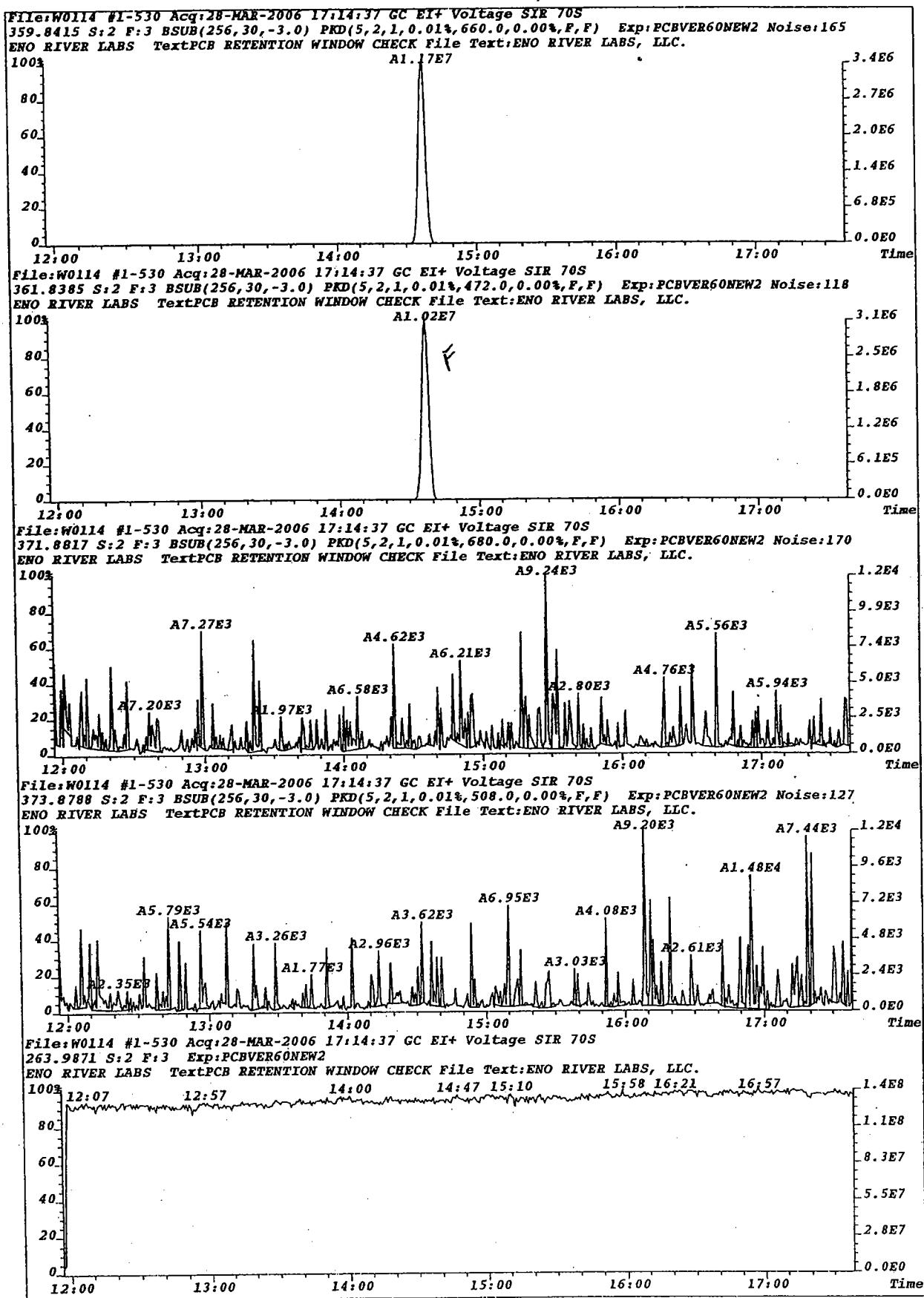


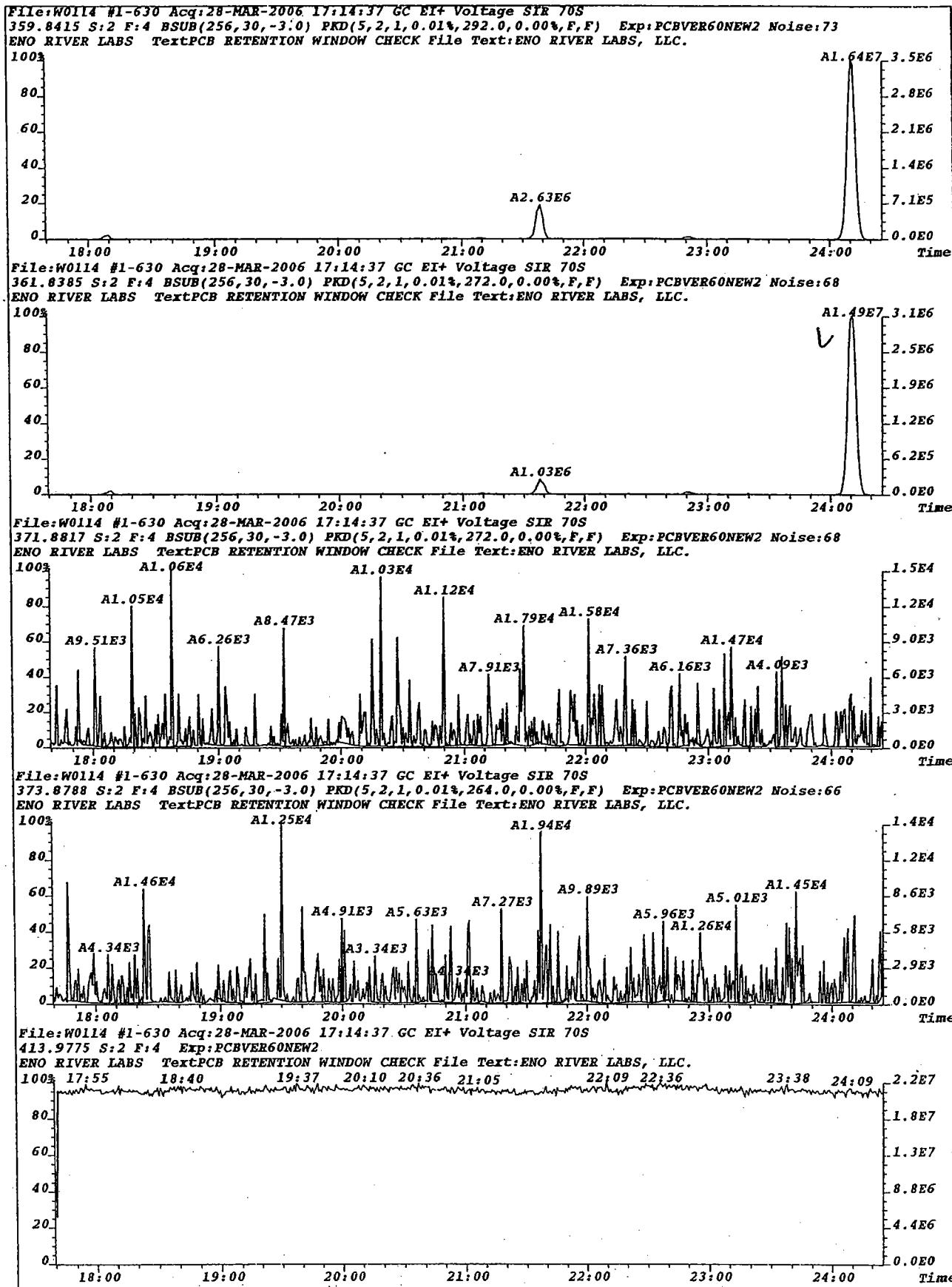
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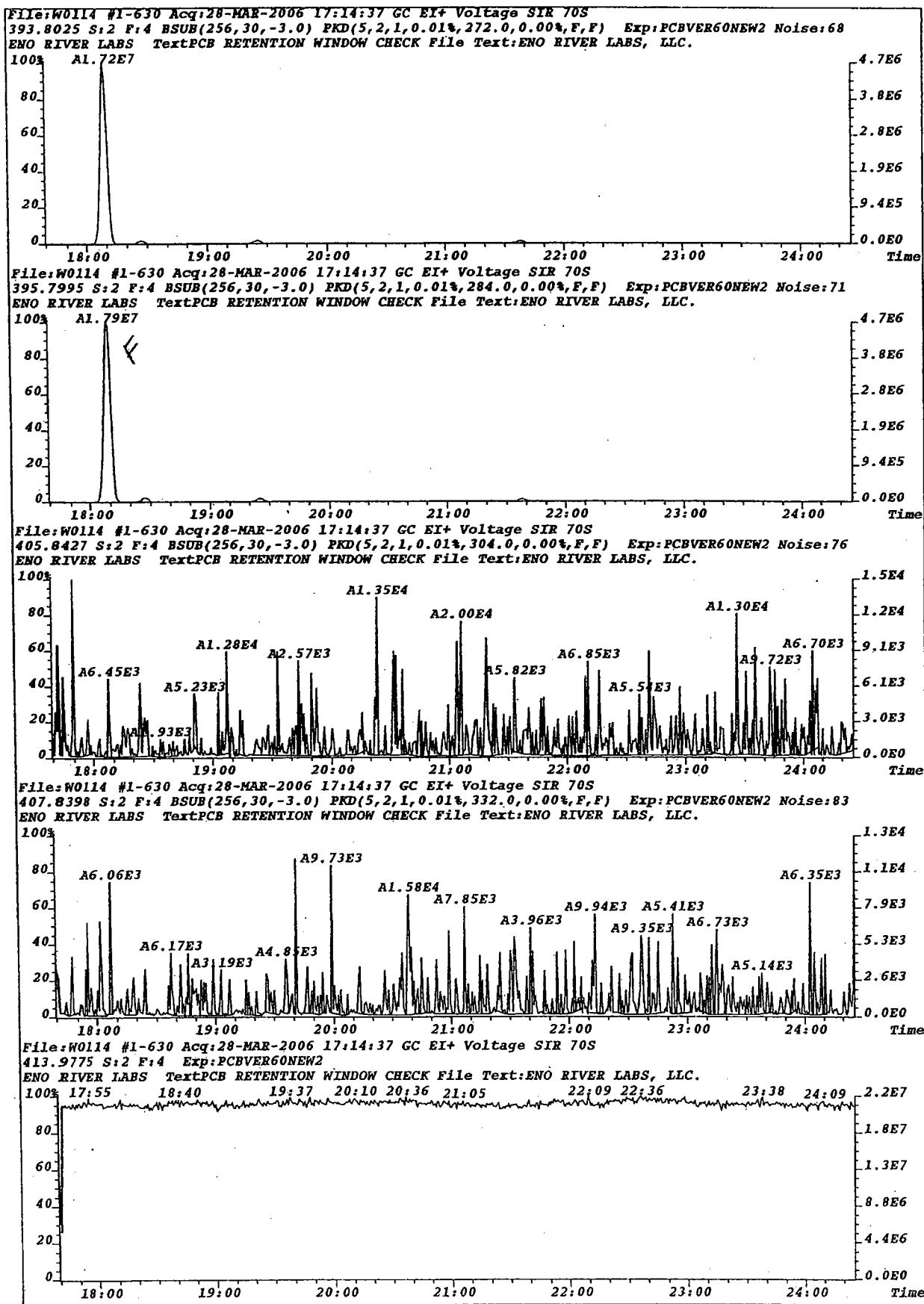


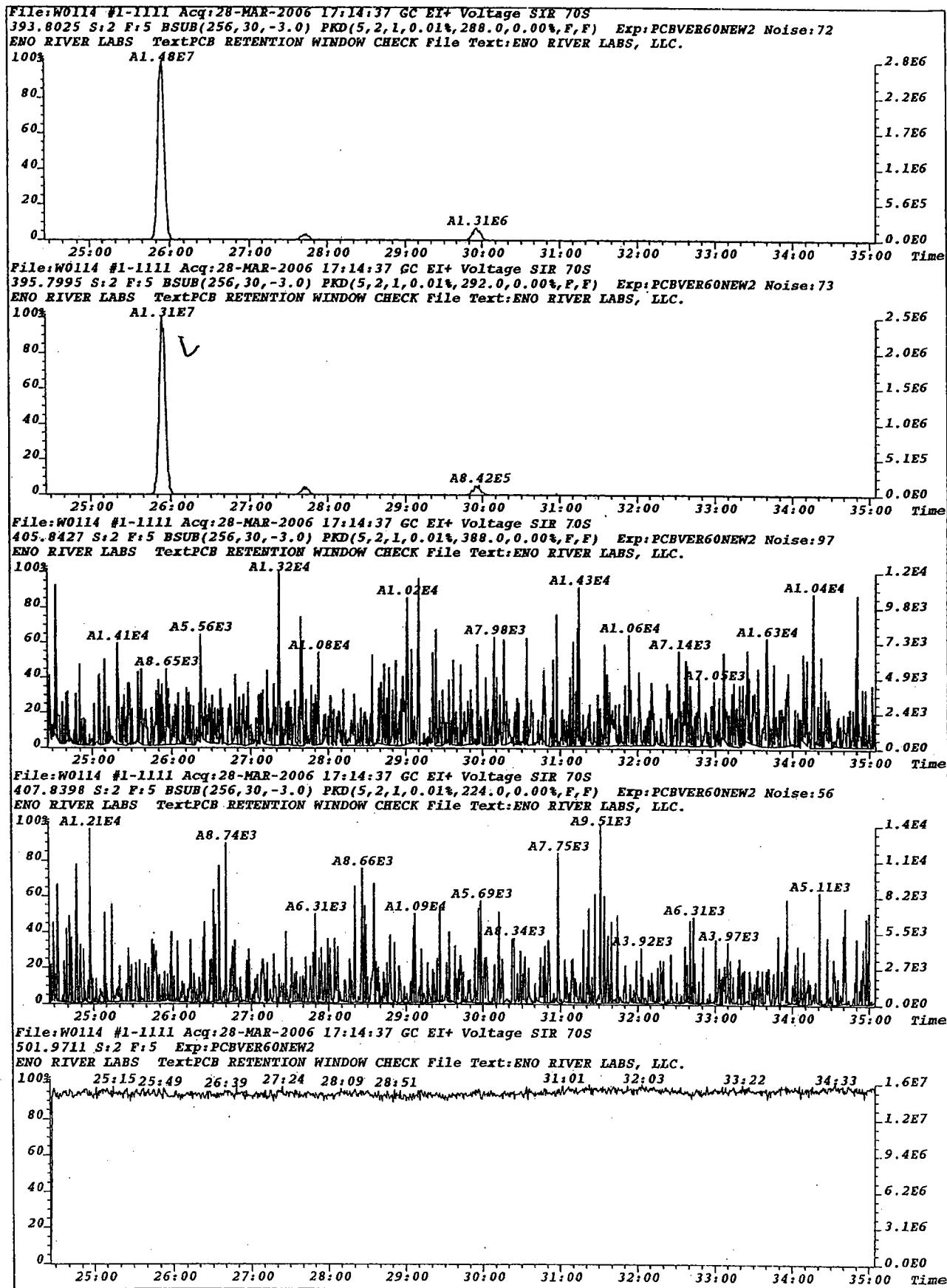


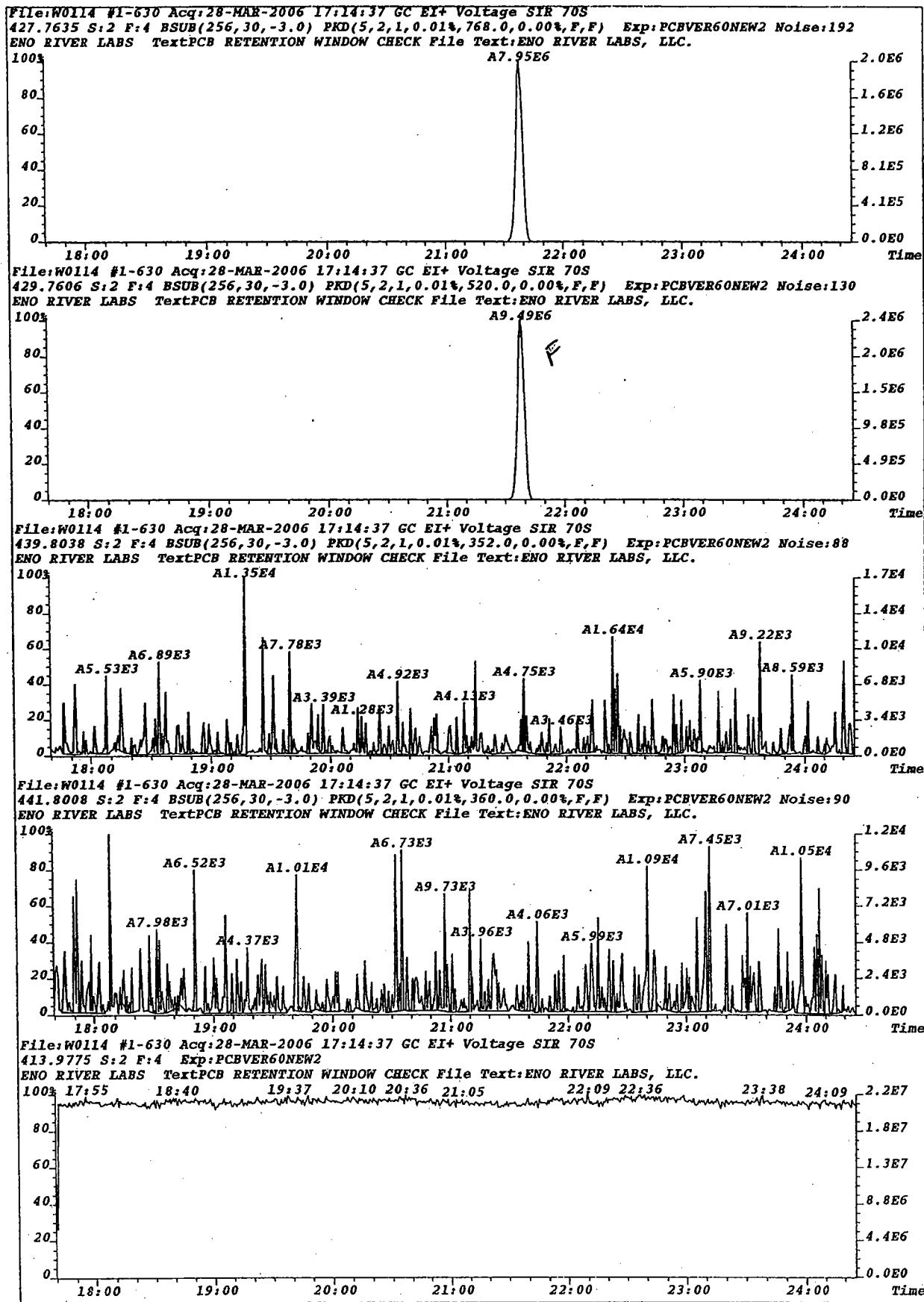


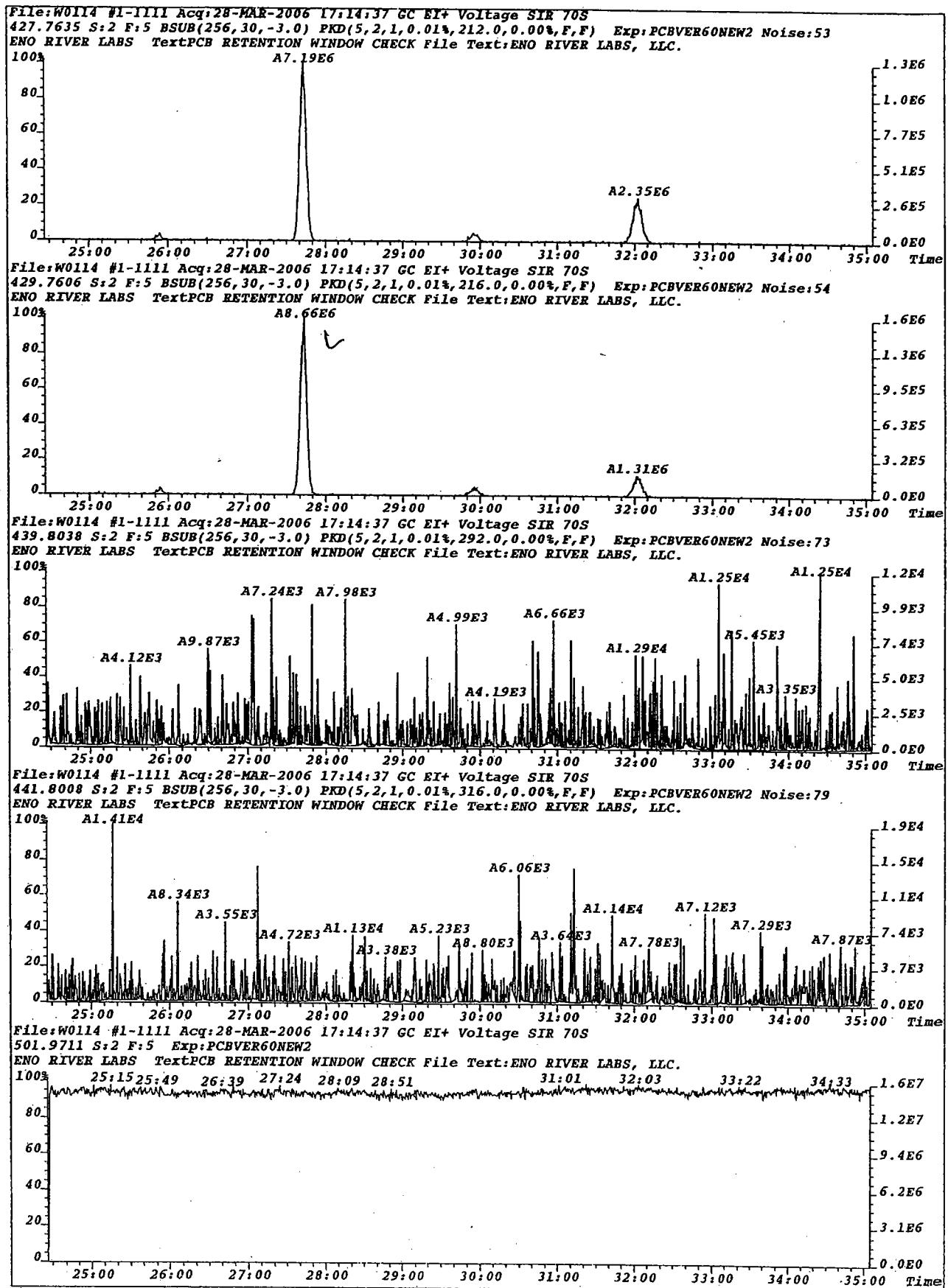


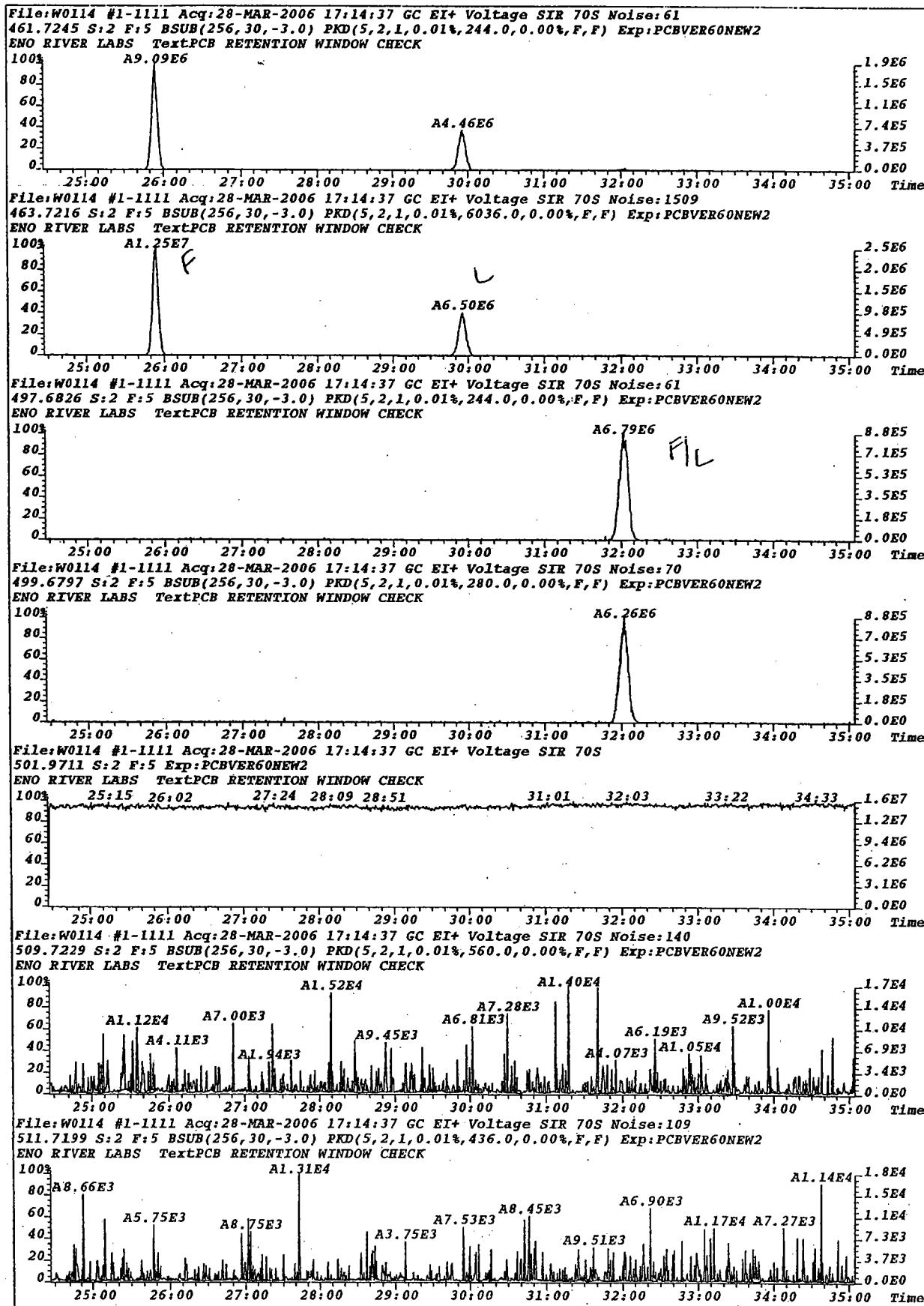




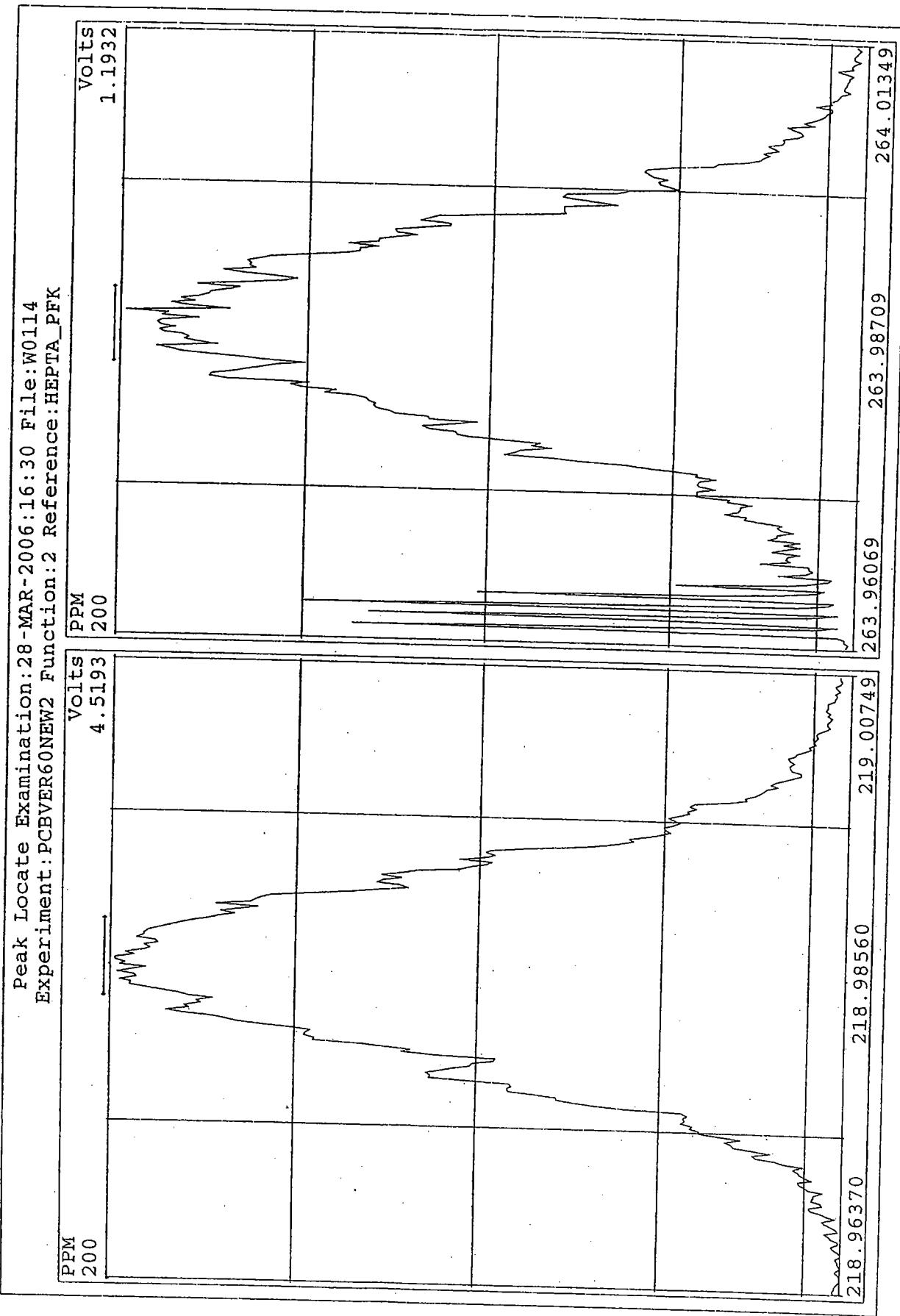








Peak Locate Examination:28-MAR-2006:16:30 File:W0114
Experiment:PCBEVER60NEW2 Function:2 Reference:HEPTA_PFK



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